

**THE RELATIONSHIP BETWEEN PLACE
ATTACHMENT AND FIRST NIGHT
PARTICIPANTS VIEWS OF CROWDING,
OVERALL SATISFACTION, AND FUTURE
ATTENDANCE**

Thomas D. Wickham

Ph.D. Candidate in Leisure Studies, The Pennsylvania
State University, 201 Mateer Building, University Park PA
16802

Deborah L. Kerstetter

Associate Professor of Leisure Studies, The Pennsylvania
State University, 201 Mateer Building, University Park, PA
16802

Abstract: The importance of individuals' attachment to an outdoor recreation setting has been of interest to recreation researchers for some time. Recreation researchers have used the concept of place attachment to better understand people's attachment to recreational settings as well as geographic areas. Past recreation research examining the phenomena of "crowding" in outdoor recreation settings has adopted the approach that crowding is a negative evaluation of population density and also has a negative impact on visitor experience. However, tourism-based research has taken a different approach to crowding and viewed it in terms of enhancing the visitor's experience. Thus, the purpose of this study was to explore the relationship between place attachment and visitor's perceptions of crowding, overall satisfaction, and likelihood of purchasing a button (event pass) for First Night®. First Night® is a community-based, alcohol-free alternative to the traditional New Years Eve revelry. The data were analyzed using a series of correlations between an index of place attachment and six crowding questions, overall satisfaction, and likelihood of purchasing a button for next year's First Night®. The results showed that three of the six crowding items are significantly correlated to place attachment and both overall satisfaction and likelihood of purchasing a button were significantly correlated to place attachment. Results suggested that place attachment is positively related to individual's evaluation of crowding and, in turn, place attachment may influence a visitor's overall satisfaction and likelihood of purchasing a button for next year's First Night®.

Introduction

The use of place attachment in recreation research is relatively new compared to research conducted in other fields. Early research came from the geography discipline where researchers focused on the relationship of place attachment to environmental behavior issues (Ralph, 1976; Stokols & Shumaker, 1981; Tuan, 1974). In the past two

decades, however, researchers in outdoor recreation have chosen to examine place attachment's relationship to recreational settings and experiences.

Place attachment was originally introduced to outdoor recreation by Schreyer, Jacob, and White (1981) and adopted by other researchers (c.f., Bricker, 1998; Moore & Graefe, 1994; Mowen, Graefe, & Virden, 1997; Williams & Roggenbuck, 1989) to examine what variables predict a person's level of place attachment and to determine how place attachment predicts respondent's perceptions of the recreation experience and the setting. Mowen, Graefe, and Virden (1997) advanced our understanding of both place attachment and satisfaction when they examined the relationship of a combined construct of place attachment and enduring involvement with both setting and experience items.

Experience domains like crowding have traditionally been used in leisure studies for outdoor recreation research. In outdoor recreation research, crowding is traditionally seen as the most direct physical and psychological manifestation of increasing user density and the single largest impact on the social experience of the visitor. There is an assumed negative relationship between increasing visitor density and visitor satisfaction which is one of the main concerns with crowding in natural resource areas (Manning & Lime, 1996). Research on the "crowding" phenomenon has supported this notion that crowding is perceived as negatively influencing a visitor's experience (Ditton, Fedler, & Graefe, 1983; Knopf, 1987; Kuentzel & Heberlein, 1992).

Tourism and festival-based research, however, has viewed crowding from a different perspective. It has been perceived as having a positive influence on visitor's experiences in shopping, festival and tourist locations (Anderson, Kerstetter, & Graefe, 1997; Eroglu & Harrel, 1986). In most cases, visitors expect or even desire a large crowd at an event such as a regional or state festival or a spring break vacation for a college student (Eroglu & Harrel, 1986). In fact, Eroglu and Harrel have called the positive reaction to crowding "functional density." Functional density is believed to be "good crowding," or crowding that adds to the visitor's experience.

The purpose of this study was to explore the strength of the relationship between place attachment and a visitor's perception of crowding, overall satisfaction with First Night® State College and likelihood of purchasing a button (event pass) for the next year's First Night®.

Methodology

Data were obtained from a comprehensive study of five First Night® events. First Night®, a community-based, alcohol-free alternative to traditional New Years Eve revelry, hosts such events as ice sculpting, choirs, orchestras and various childrens events. The overall objectives of the study were to develop a better understanding of the audience at First Night® events, their

spending habits, and their respondent's reactions to crowding. More specifically, in the context of this paper, the objectives were to address the relationship between place attachment and visitor's perceptions of crowding, overall satisfaction, and likelihood of purchasing a button (event pass) for next year's First Night®. The data used to address these objectives were collected in one of the five First Night® cities, State College, PA.

Data Collection Procedures

Data for this study were collected in State College, PA on December 31, 1998 between 2:30 and 11:00 PM. A total of 283 on-site interviews were completed during this time period. Initially, respondents were contacted on-site and asked to respond to a short interview. Upon completion of the interview, they were asked if they would complete a more thorough mailback questionnaire. Two weeks after the initial on-site interview, a follow-up postcard was sent to all interviewees. A follow-up questionnaire was sent one week after the post card. From the initial 283 on-site interviews, a total of 184 individuals (65%) responded to the follow-up questionnaire.

Instrumentation

The present study used a modified version of Moore and Graefe's (1994) scale to measure the level of place attachment respondents had for State College and surrounding townships. Only items that could be modified to fit a community attachment setting were included. A total of 12-items were used for the place attachment scale. The reliability of this place attachment scale was acceptable with a chronbach's alpha of .87. Respondents also were asked to rate each item from 1 (strongly disagree) to 5 (strongly agree). A respondent's likelihood of purchasing a button (pass for the event) for next year's First Night® was measured on a seven point scale. The scale ranged from 1 (not at all likely) to 7 (very likely). Finally, respondents were asked to rate their overall satisfaction on a seven point scale from 1 (low) to 7 (high). This question was intended to provide a better understanding of how people felt about all aspects of First Night® State College.

Perceived crowding was measured using a scale originally designed by Anderson, Kerstetter and Graefe (1997). Respondents were asked to respond to six items from 1 (very negative evaluation) to 7 (very positive evaluation). The crowding items included: The number of people at First Night® State College was... 1 (larger than expected) to 7 (smaller than anticipated); The other First Night® State College attendees present... 1 (detracted from my experience) to 7 (added to my experience); The sights, sounds, and movements within First Night® activities were... 1 (unenjoyable) to 7 (enjoyable); First Night® would have been enjoyable with... 1 (far fewer people) to 7 (far more people); The lines for food, information, and other vendors were... 1 (intolerable) to 7 (tolerable); The

lines and time spent waiting for performances were... 1 (intolerable) to 7 (tolerable).

Analysis

Given the interval nature of both the dependent and independent variables, a correlation analysis was considered an appropriate statistical procedure to test for the relationships under study. A pearson's correlation coefficient was used in the analysis to show the strength of the relationship between the variables used in this study. All analyses were measured for significance at the .05 level. Reliability analysis was used on both the place attachment scale and the crowding scale to determine if they were consistently measuring the same construct for respondents in this study.

Results

The response rate for this study was 65% for a total sample size of 184. The gender distribution of the sample population consisted of 60% females and 40% males. The mean age of respondents was 44.91 with a range of 18 to 72.

The alpha for the reliability analysis of the place attachment index was .88, which demonstrates that the items in the index were measuring similar concepts. The index which was intended to measure a visitor's perception of crowding at First Night® State College did not hold together, however: thus, the individual crowding items were tested for their relationship with place attachment.

The correlation analysis revealed that three of the six crowding items were significantly correlated with the place attachment index. Place attachment and the effect other First Night® State College attendees had on a visitor's experience was significant at the .001 level with $r = .265$. Place attachment and a person's satisfaction with the sights sounds and movements of the activities was significant at the .001 level with $r = .280$. The last crowding item which was significant was an attendees tolerance for lines at performances. This item was significant at the .05 level with $r = .166$. In all three cases, the positive correlation indicated that as attachment to the community increased so too did positive perceptions of crowding. The correlation analysis between place attachment and overall satisfaction with First Night® State College was significant at the .001 level and had an r value of .271. This result indicated that attachment and overall satisfaction were positively correlated, suggesting that with increased attachment to the community, respondents were significantly more likely to be satisfied with the overall event. The last correlation analysis was between place attachment and likelihood of purchasing a button (event pass) for next year's First Night® event. This was significant at the .001 with an r value of .282. Again, as individuals attachment to the community increased so too did their likelihood of purchasing a button for next year's First Night® event.

Table 1. Correlation Matrix for the Relationship Between Place Attachment and Crowding Variables, Overall Satisfaction, and the Likelihood of Purchasing a Button for Next Year.

Variable	1	2	3	4	5	6	7	8	9
1. Place Attachment	1.000	.010	.265***	.280***	.068	.128	.166*	.271***	.282***
2. The number of people at First Night® State College was...	.010	1.000							
3. The other First Night® State College attendees present...	.265***		1.000						
4. The sights, sounds, and movements within First Night® activities were...	.280***			1.000					
5. First Night® would have been enjoyable with...	.068				1.000				
6. The lines for food, information, and other vendors were...	.128					1.000			
7. The lines and time spent waiting for performances were...	.166*						1.000		
8. Overall satisfaction with First Night® State College	.271***							1.000	
9. Likelihood of purchasing a button for next year's First Night® State College	.282***								1.000

* Sig. at .05

*** Sig. at .001

Conclusions and Implications

The findings from this study suggest that understanding place attachment can be a useful tool for grasping the relationship between people's feelings towards a community and events such as First Night® State College. Place attachment displayed a positive and significant relationship with visitor's views of crowding, evaluation of an events quality, and future behavior related to the event. The study partially confirmed Mowen et al. 's (1997) work which found that a combined construct of place attachment/enduring involvement positively and significantly influenced visitor's feelings of overall satisfaction with a recreation experience. Similar to Anderson et al. (1997), crowds at this event have a positive effect on perceptions of the event. This finding contradicts other research in recreation which suggests that crowding negatively influences visitors' perceptions of their recreation experience.

Place attachment was significantly related to three of the six crowding items and both overall satisfaction with the First Night® event and the likelihood that a person would purchase a button for next year's First Night® State College. The crowding item which measured a person's tolerance for food, information, and other vendors approached significance. The results in this study suggest that place attachment is positively related to an individual's views of crowding. The positive reaction that people have towards many aspects of First Night® appear to be tied to their level of attachment to the community. First Night® managers would do well to build off of the tie visitors have to their local community events.

The yearly event known as First Night® is held around the United States on New Year's Eve and is a celebration of both the arts and the community. From the results of this study, it appears that the crowds at First Night® and other similar festivals are a sign of support and pride. Managers of festivals or other events should concern themselves less with "crowds" and more with running an efficient and effective program. By providing services that are of high quality, managers may diffuse a person's concerns with crowds taking away from their experience. In fact, crowds appear to be what visitors are looking for and are decisively related to their overall satisfaction and perhaps their return in the future.

In the future, managers may wish to continue with or add to their programs a special event which showcases the community or local culture. By taking this action, managers may positively influence the visitor's experience. Managers could use advertisements on billboards, radio, television or any other media outlet to appeal to people within the community who have special feelings for a local area or region. Festivals seeking to increase visitor numbers or perhaps draw community members who may have shied away due to crowds in the past, should encourage visitors to place their concerns aside and join in the celebration of community and the arts.

Future research should consider using another attachment scale such as one that is specifically designed to measure community attachment. A regression analysis could be used with other independent variables such as length of residence and gender to determine what and how various independent variables affect a person's view of crowding, overall satisfaction, and likelihood of returning in the

future. Lastly, attempting a similar study in a medium to large urban setting, rather than a small community setting like State College, PA, would enhance our understanding of attachment and crowding within the context of festivals/events.

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RELATIONSHIPS BETWEEN PLACE ATTACHMENT, ACTIVITY INVOLVEMENT, DESIRED EXPERIENCES, AND FREQUENCY OF URBAN PARK USE

Andrew J. Mowen

Manager of Research and Program Evaluation, Cleveland
Metroparks, 4101 Fulton Parkway, Cleveland, OH 44144

Alan R. Graefe

Associate Professor, School of Hotel, Restaurant and
Recreation Management, 201 Mateer Building, The
Pennsylvania State University, University Park, PA 16802-
1307

Abstract: Integrating psychological relationships associated with settings and activities into current management frameworks continues to challenge recreation managers and researchers. Constructs such as place attachment, activity involvement, and desired experiences have been purported to be key aspects of leisure which may explain user behaviors, attitudes, and evaluations of outdoor recreation opportunities. If managers are to take an active interest in recognizing and managing for these psychological domains, the exact nature of their relationship to recreation behaviors and management preferences need to be understood. This particular study explored the relationships between place attachment, activity involvement, desired experiences and frequency of park use at an urban park district. Findings indicate which psychological constructs are most salient in influencing repeat visitation rates at urban park settings. Promotional and management implications are also discussed.

Introduction

The role of individual level experiences and attitudes in shaping recreation behavior and setting choice is an underlying assumption behind many outdoor recreation management frameworks such as the Recreation Opportunity Spectrum (ROS), and Benefits Based Management (BBM). These management frameworks assume that people choose to participate in recreation based on the available activity, setting, and experiential opportunities. However, actual relationships between psychological constructs such as place attachment, activity involvement, and desired experiences and behavioral constructs such as recreation behavior and setting choice have not provided evidence of this assumption. Therefore, it has been difficult convincing managers that individual, psychological experiences are relevant for day-to-day management decisions.

One way of examining the potential management relevance of psychological constructs is to analyze how various psychological construct impact visitor behavior and activity/setting choices. More specifically it would be

useful to understand how these domains influence frequency of park visitation and/or program participation. Frequency of participation is a very critical issue for site managers because it has an indirect effect total park usage and can have an impact on capacity/demand issues of a park. For example, if visitors' frequency of visitation increased by one more visit per year, park/program attendance would double creating a strain on the ability to handle demand. Some managers may wish to attract more frequent and loyal users to their sites/programs while others may desire to attract more infrequent users from outside the community. If managers understood how psychological domain related to frequency of visitation, they may be more willing to integrate these constructs into their visitor management and marketing effort.

Several types of psychological constructs have been purported to affect visitor choices and behavior. Recent research provides evidence that visitors who were more involved with their activities or were more attached to recreation settings were more likely to be frequent and recent participants (Williams et al., 1992). There is a large body of research that also indicates that desired experiences can relate to setting and behavior choices (Manfredo, Driver, & Tarrant, 1996). However, less is known about how experiences such as *fun*, *escape*, *being close to nature*, etc. influences frequency of visitation. Given that most of the previous psychological domain research has focused on a single domain, (i.e., either activities, settings, or desired experiences), it is not known how strongly these constructs relate to visitation frequency compared with the others. If managers knew which domain was most strongly related to frequency of visitation, they could more effectively integrate these psychological conditions into their product and promotional planning efforts.

Purpose of the Study

The purpose of this study is to examine the relationships between place attachment, activity involvement, desired experiences and frequency of urban park visitation. It seeks to explore whether recreationists' orientation to activities, settings, or experiences best explain the frequency of their visits. This study will also analyze how these constructs relate to frequency of visitation by the specific type of activity. From these results, managers may understand the impact and importance of the psychological domain and may be persuaded to assess and integrate it in their daily management activities. Some suggestions for promotional and product decisions that capitalize on the most salient constructs are also provided. These decisions, when oriented toward the most salient construct, may then serve to increase/decrease frequency of visitation at a park setting or for a park program.

Methods

This study is part of a larger research initiative conducted in cooperation with the Fairfax County Park Authority in Virginia. The purpose of this initiative was to understand how subscribers to their park publication (*ParkTakes*) used facilities and programs and how they felt about these

facilities and programs. To do this, a mail questionnaire was distributed to a systematic sample of *ParkTakes* subscribers. 395 subscribers completed and returned this questionnaire for a 51% response rate. A demographic profile of respondents was checked against previous studies conducted with this database. From this check, it was determined that this study sample was representative of most *ParkTakes* subscribers.

Respondents were asked to indicate how often they had visited a FCPA site or participated in a FCPA program within the last 12 months. This frequency of visitation and participation was then correlated with various psychological domains to examine if any of these domains were significantly related to visitation, and if so, in what manner and to what degree. Activities, settings, and experiences are key elements that define outdoor recreation management frameworks such as ROS (Clark and Stankey, 1979). As a result, the three basic psychological domains measured in this research were place attachment, activity involvement, and desired experiences.

Place attachment was measured using an adaptation to Williams & Roggenbuck's (1989) place attachment scale. Respondents were asked to indicate how they felt about FCPA facilities and settings by indicating the extent that they agreed or disagreed with statements such as, "those places are a part of me," or "those places are the best places for what I like to do." The scale used in this study had 8 of the original 25 items for a Cronbach's Alpha of .92.

Activity involvement was measured using an adaptation to McIntyre's 1990 enduring involvement scale. Here, respondents were asked to indicate how they felt about their most important recreation activity associated with their visits. Again, respondents indicated how they felt (strongly agree to strongly disagree) about statements such as, "this activity has a central role in my life," or "this activity says a lot about who I am." The scale used in this study had 6 of the original 14 items for a Cronbach's Alpha of .88.

Finally, this study used an abbreviated sub-set of the Recreation Experience Preference (REP) scale that was based on previous studies using similar recreationists as part of their sample (Manfredo, Driver, Tarrant, 1996). The 14 experience items used in this study asked respondents to indicate how important various experiences were to their visitation of FCPA settings and programs. Statements such as, "to meet new people," "to help keep me in shape," and "to experience solitude" are representative of some of these statements. Principal component analysis yielded four distinct experience sub-domains. These domains were subsequently named escape, social, fitness, and family nature. Reliabilities for these four experience components were within acceptable ranges from .71 to .85.

Given that not all activities involve the same level of investment or require the same type of settings, this study also split the sample by visitors' most important FCPA recreation activity. Activity types were classified based on

findings from previous urban park studies and based on discussions and consultations with FCPA managers. Four general activity types were generated from this post-facto analysis. These activities were named fitness activities (including running, bicycling, swimming, organized ball sports), culture activities (including arts and crafts program participants and historic site visitors), outdoor/nature based activities (including bird watching, nature education program participants), and non-fitness/passive activities (including golf, spectators of active sports, and renters of picnic and recreation center facilities).

Given that all items were measured as interval variables, relationships (or correlations) between place attachment, activity involvement, and desired experiences were analyzed using the Pearson Product Moment statistic. While the use of multiple regression may have provided additional insights into the relative contribution of each independent variable, this method was ruled out given the inadequate sample size associated with some of the activity groups. Future inquiries into these relationships should strongly consider looking at relative contribution of these domains while controlling for potential inter-correlations.

Results

Overall level of place attachment and activity involvement, and overall importance of experience domains are presented in Table 1. For this sample, recreationists had higher levels of activity involvement than place attachment. Of the four experience domains, the desire for family nature and physical fitness experiences were the most important with means of 3.7 on a 5-point scale. The desire for escape and social affiliation was less important with means of 2.99 and 3.08, respectively. Recreationists further were divided into four activity types: fitness activities (N=139), culture activities (N=48), outdoor/nature based activities (N=71), and non-fitness/passive activities (N=49).

Table 1. Mean level of Place Attachment, Activity Involvement, and Desired Experiences.

Psychological Domain	Average Level or Importance on a 5 Point Scale*
Place Attachment	3.08/5.00
Activity Involvement	3.58/5.00
Desired Experiences	
Escape	2.99/5.00
Family Nature	3.70/5.00
Social Affiliation	3.08/5.00
Physical Fitness	3.70/5.00

1 = Lowest level or importance, 5 = Highest level or importance

There were several significant relationships between these three psychological domains and frequency of visitation. These relationships, while significant, were low to moderate in strength and had r-values ranging from .194 to

.525. When all activity users were combined into one sample, activity involvement, place attachment and fitness experiences were positively and significantly related to frequency of visitation (Table 2). Activity involvement was the strongest correlate in a relative sense, but was not much stronger than place attachment or fitness experiences (.257 vs. .242 and .234, respectively).

Various types of activities may be associated with different levels of visitation. For example, fitness activities may occur more regularly and may be associated with a higher number of overall visits than culture based activities that may only occur a few times in a year or during a few special events. As a result of the potential variation in activity visitation, the relationships between psychological constructs and visitation were examined across different types of activities. Results indicated that all activity groups had relationships between emotion based constructs and frequency of visitation with the exception of culture based activities.

Activity involvement was the strongest correlate to frequency of visitation among fitness-based activity users. Place attachment and fitness experiences were also significantly and positively related to frequency of visitation in this type of activity ($r = .194$ and $.197$, respectively). The average number of visits made by these activity users were the highest of the four groups at 37 visits per year (Table 2). Of the four activity groups, culture activity users visited FCPA the least with 16 visits per year. There were no significant relationships between psychological constructs and frequency of visitation among culture activity users. Outdoor activity users visited FCPA for an average of 26 visits in the past year. Within this group, activity involvement was the strongest correlate to frequency of visitation ($r = .278$), followed closely by escape ($r = .247$) and place attachment ($r = .217$) (Table 2). Finally, the non-fitness/non-active group visited FCPA for an average of 19 times and place attachment was the strongest correlate to frequency of visitation ($r = .525$) within this group followed by escape ($r = .346$), activity involvement ($r = .333$), and social experiences ($r = .294$) (Table 2).

Conclusions and Implications

Results provide evidence that there are significant linkages between the psychological domain of recreation and frequency of visitation. While these relationships were not strong, they do suggest that the psychological domain should be acknowledged and formally integrated into managerial frameworks and planning.

In this study, activity involvement was the largest overall correlate to visitation rates across the entire sample. Activity involvement had the most significant impact on participation in fitness and outdoor activities, but not on participation rates in the non-active or passive activities. Instead, place attachment was the most significant correlate to visitation among these non-active recreationists. Finally, none of these constructs explained visitation among culture-based recreationists.

Study findings would seem to suggest that managers who seek to track or attempt to influence participation rates would do well to examine involvement and attachment levels across user groups. If they wished to increase visitation in non-fitness or passive activities, then they may want to consider ways of helping visitors become attached to the setting faster or in more depth. If they wished to increase visitation in fitness or outdoor activities, they may want to devise ways of increasing activity involvement levels. This could be accomplished through activity seminars or setting appreciation events.

Table 2. Relationships between psychological domains and frequency of visitation by the total sample and by activity

Activity Group	Sig. Correlations ($p < .05$)	Visits per year
<i>Fitness</i>		
Activity Involvement	.268	37
Fitness Experiences	.197	
Place Attachment	.194	
<i>Culture</i>	N.S.	16
<i>Outdoor</i>		
Activity Involvement	.278	26
Escape Experiences	.247	
Place Attachment	.217	
<i>Non-Fitness</i>		
Place Attachment	.525	19
Escape Experiences	.346	
Activity Involvement	.333	
Social Experiences	.294	
<i>All Activities</i>		
Activity Involvement	.257	28
Place Attachment	.242	
Fitness Experiences	.234	

The reader is cautioned, however, that less is known about the process of becoming attached or involved. Moreover, acquiring strong feelings for a place, activity or experience is generally influenced by factors that are outside of the manager's control. As a result, it may be difficult for managers to make significant changes in visitors' involvement or attachment levels. If the goal is to increase visitation in some types of activities, managers may still wish to orient their promotional materials toward the most salient or relevant psychological domain. For example, different promotional messages could be directed at different types of users with an orientation toward activity involvement or toward place attachment. Active participants may see messages that remind them that those activities are part of the everyday lifestyle while passive participants may be exposed to messages that say that the parks themselves are special places for their life.

Regardless of which psychological construct is most related to frequency of visitation, it is important to realize that emphasizing involvement or attachment as a means to increase or decrease visitation may only be successful with those individuals who are already highly involved or more predisposed to further visitation. Should managers wish to

attract visitation among infrequent visitors, reducing visitor constraints by offering convenient program scheduling or increasing park access should first be explored.

This study has provided further evidence of linkage between the psychological domain of recreation (i.e., place attachment, activity involvement, desired experiences) and the behavioral domain of recreation (i.e., frequency of park visitation). It adds to the growing body of literature, which suggests that affective attachment toward components of the recreation phenomenon should be integrated into management planning frameworks. The next challenge will be to determine how to monitor changes in these psychological components over time and how to integrate them into short and long term management decisions.

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EXPLORING VISITOR MEANINGS OF PLACE AND ENRICHING INTERPRETER KNOWLEDGE OF THE AUDIENCE IN THE NATIONAL CAPITOL PARKS

Wei-Li Jasmine Chen

Research Assistant in Recreation, Parks, and Tourism
Resources, Division of Forestry, West Virginia University,
PO Box 6125, 322 Percival Hall, Morgantown, WV
26506-6125.

Theresa L. Wang

Assistant Professor of Recreation, Parks, and Tourism
Resources, Division of Forestry, West Virginia University,
PO Box 6125, 322 Percival Hall, Morgantown, WV
26506-6125.

David Larsen

Interpretation Specialist, Stephen T. Mather Training
Center, National Park Service, PO Box 77, Harpers Ferry,
WV 25425.

Abstract: The visitor meanings of place study is a collaborative effort between the National Park Service and West Virginia University that uses a new approach to interpretative research based on (1) understanding the meanings visitors attach to park resources, (2) conducting interpretive training to expand interpreters' knowledge of the audience, and (3) revising park interpretive programs to reflect an expanded understanding of visitor meanings and interests. The National Park Service's new Interpretive Development Program philosophy provides the conceptual framework for the study. Resources at National Capital Parks—Central possess powerful meanings such as war, peace, freedom, pride, patriotism, and strength. These meanings have relevance to people's lives. Visitors to the Lincoln Memorial, the Vietnam War Veterans Memorial, and the Korean War Veterans Memorial seek something of value for themselves such as a sense of connection with the past. The role of park interpreters is to facilitate a connection between the interests of the visitor and the meanings of the resource. The goal of the study is to determine whether increased interpreter knowledge of the audience will facilitate expanded visitor connections to the meanings of the resource.

Introduction

Interpretation relates the purpose and significance of a natural area or heritage site, introduces outstanding natural or cultural features, explains how natural or social systems function(ed) in the past and present, and translates scientific concepts or diver cultural perspectives into ideas easily understood by the public. Interpretation facilitates a visitor's sense of connection to the resource.

Interpretation is also a mechanism for the public land managing agencies to communicate their mission to the public and build support for that mission.

The National Capital Parks can be traced back to President George Washington in 1790. Congress established a permanent national capitol on July 16, 1790, and the city's Federal Commissioners were given the power to "purchase or accept such quality of land as the President shall deem proper for the use of the United States." The National Park Service inherited administrative responsibilities under the Reorganization Act of 1933. Today, many cultural resources are located within the national capitol and some of them represent national icons including the Washington Monument, the Lincoln Memorial, the Korean War Veterans Memorial, the Vietnam War Veterans Memorial, located along the National Mall. These park resources represent the ideals of the U.S. Founding Fathers, provide a meeting ground for civic movements, and remind visitors of important people and events in U.S. history. Interpretive programs in the National Capital Parks—Central (NCP—Central) are a powerful tool to communicate the significance of the nation's history, to enrich visitor experiences, and to promote resource stewardship and participatory democracy.

Literature Review

The National Park Service (NPS) has recently taken the lead in advancing interpretive theory and establishing principles for effective interpretive practice by developing the Interpretive Development Program. Previous interpretive training efforts in the NPS focused on getting interpreters "trained." The Interpretive Development Program, however, outlines an improved conceptual foundation for effective interpretation and provides a mechanism for interpreters to demonstrate success in clearly-defined interpretive competencies. In short, the new interpretive curriculum successfully integrates interpretive theory and practice, ensuring interpreter competence through a rigorous certification process. The Interpretive Development Program is based upon three tenets, including:

- Resources possess meanings and have relevance.
- Visitors seek something value for themselves.
- Interpretation facilitates a connection between the interests of the visitor and the meanings of the resource.

The Park Service maintains that all effective interpretation links tangible resources to intangible resources to reveal meanings. Interpretation research has highlighted the unique challenges and opportunities associated with interpreting natural and cultural resources like those at the National Capital Parks—Central. For example, researchers have discussed the challenges of interpreting monuments and war memorials (Machlis, 1992; Bennett, 1998). Current research also supports the theory and practice upon which the Interpretive Development Program is based. Trotter (1992) explains why it is important for interpreters to have an in-depth understanding of park visitors' meanings and belief systems: "Humans carry their cultural values everywhere they go, and act out of those values, whatever

they do. This makes it useful to know the diversity of beliefs and values people bring to a subject when designing an interpretation program." The job of the interpreter is to facilitate (not dictate) the individual's personal connection to the resource and the formation of their own unique meanings. Wagar (1975) highlighted the challenge interpreters face when he said, "Interpreters must often communicate with people whose memories, thought processes, and word associations are quite different from each other. The most effective interpreters are those with a knack for translating meanings from one system of symbols (often the scientist's) into another (the visitor's)." Wager (1975) also suggested that universal concepts can be used to tap into memories, values and experiences that many visitors share. Loomis (1996) supports the role of interpretation to facilitate a connection between the interests of the visitor and the meanings of the resource: "Interpretation should not only raise curiosity (attract central attention) but also provide opportunities for involvement by relating content to personal meanings."

An important component of the NPS's Interpretive Development Program is **the interpretive equation**. The interpretive equation highlights the key factors that contribute to effective interpretation:

$$(K_R + K_A) AT = IO$$

In the equation, K_R represents the interpreter's "knowledge of the resource," K_A represents the interpreter's "knowledge of the audience," AT represents the interpreter's use of an "appropriate techniques," and IO represents the production of an "interpretive opportunity" for visitors. Previous interpretive research has focused primarily on the audience demographics, visitor motivation, visitor attitudes and behavior, and the learning process (Hayward & Larkin, 1983; More, 1983; Cable et al., 1987; Rakow & Lehtonen, 1988; Trotter, 1989; Wallace & Witter, 1991; Bitgood, 1994; Meredith et al., 1995; Ham & Krumpke, 1996). Some research explores the importance of the use of appropriate techniques (AT) and media effectiveness (Mahaffey, 1970; Reyburn & Knudsen 1980; Hammit, 1982). A related area of research has examined the extent to which interpretive programs yield desired interpretive outcomes (Cable et al. 1984; Griest & Mullins, 1984; Cable et al. 1987). Research on interpretive outcomes has focused on interpretive effectiveness, attitude and behavior change, and the quality of visitor experiences. Several articles have explored the characteristics of a quality interpreter (Cherem, 1977; Brockman, 1978; Mullins, 1984). However, very few research studies have examined the importance of the interpreter's knowledge of the resource (K_R) or the interpreter's knowledge of the audience (K_A) in the delivery of quality interpretive programming.

Objectives

The National Park Service and West Virginia University have begun a three-year study to explore the meanings visitors attach to park resources at three NPS-administered sites. The study seeks to assess whether an expanded

interpreter knowledge of the audience facilitates an increased connection between the interests of the visitor and the meanings of the resource. One of the three study locations is the National Capital Parks—Central. Study objectives for this site include:

1. To identify the meanings visitors attach to three sites: the Lincoln Memorial, the Korean War Veterans Memorial, and the Vietnam War Veterans Memorial. (These sites constitute an area known as "the Triangle.")
2. To devise training methods to expand interpreter knowledge of the audience and to revise interpretive programs in light of an expanded knowledge of the audience.
3. To evaluate whether an expanded interpreter knowledge of the audience facilitates increased visitor connections.

Methods

The study incorporated the following methods, design elements and analysis procedures:

- Criterion sampling
- In-depth ranger interviews
- Focus group interviews with park visitors
- Pre-test/Post-test design
- Hand coding and content analysis of interview transcripts
- Interpretation training sessions

NCP—Central was chosen due to its close proximity to the Stephen T. Mather Training Center and West Virginia University. In addition, in conjunction with the other two research locations (Great Falls Park, Virginia, and Rock Creek Park, Washington D.C.), NCP-Central contains a diversity of park resources and a wide range of potential visitor meanings. These NPS-administered sites all have active interpretive programs and a minimum of four permanent interpreters on staff.

The study used in-depth interviews to elicit and record the knowledge and perspectives of interpreters participating in the study. The Chief of Interpretation at NCP—Central selected six interpretive rangers to participate in this study. Interpreter participants completed an hour-long *entrance interview* and will complete an hour-long *exit interview* consisting of open-ended questions. During the entrance interviews, researchers sought information regarding interpreter experience, philosophy, and baseline knowledge of the audience, including the meanings the interpreter believes visitors attach to the NCP—Central park resources. During the exit interview, researchers will explore interpreter perspectives regarding the effect an increased knowledge of the audience had on the development of enhanced interpretive opportunities for visitors. Interpreter interviews were tape recorded and transcribed verbatim.

The study used *focus group interviews* to elicit and record visitor responses to questions regarding (1) the meanings visitors attach to NCP—central and the park resources, (2)

the interests visitors have toward park resources and on-site interpretive programming, and (3) the linkages they make between tangible resources, intangible resources and universal concepts. Some visitors who participated in the focus group interviews attended regularly scheduled interpretive programs while others did not. Focus groups conducted prior to visitor exposure to an on-site interpretive program sought to elicit information on the meanings visitor attach to the park site and park resources as well as the linkages visitor made between tangible resources, intangible resources and universal concepts. Focus groups conducted after visitor exposure to an on-site interpretive program sought to elicit information regarding whether the interpretive program facilitated visitors' connection to the park resources, fostered the formation of tangible/intangible linkages, and contributed to the overall impact of their park visit. Focus group interviews were tape recorded and transcribed verbatim.

The analysis of interview transcripts was accomplished by a process of *hand coding* the data, sorting the data into related categories, analyzing categories to identify recurring themes, and specifying the range of visitor meanings, interests, and connections.

Preliminary research results form the source material for a 3-day *interpretive training session* for NCP—Central interpreters. The purpose of the interpretation training sessions is to help interpreters learn how to use the data on visitor meanings, tangible/intangible linkages, and visitor assessments of interpretive program quality to revise and enhance the interpretive programs they offer. In this case, the presentation of focus group results and the 3-day interpretation training sessions function as the "treatment" which allows researchers to draw before and after comparisons and to test whether the application of the new knowledge of the audience allows interpreters to facilitate expanded visitor connections to the meanings of the resource.

Results

During six days in the summer of 1998, researchers interviewed a total of 182 visitors. Visitors were divided into 21 focus groups—12 groups had not attended an interpretive program, whereas 9 groups had attended an interpretive program. The gender distribution was about equal with 52.7 percent female interviewees and 47.3 percent male interviewees. The interviewed visitors were from diverse geographic regions, 12.4 percent were from Washington, D.C., Virginia, and Maryland; 59.7 percent were from states east of the Mississippi River; 17 percent were from the states west of the Mississippi River; and 10.9 percent were international visitors. Interviewees represent a wide range of age groups. The majority of visitors were in the 26–40 year old age range (30%) and the 41–55 year old age range (25%). The researchers were also able to interview a number of visitors under age 13. Forty-seven percent of the interviewees were first-time visitors to the site, although 18% of the interviewees visited NCP—Central five or more times. Interviewees represent diverse backgrounds including African

American (3.8%), Hispanic (2.2%), Asian (3.8%), and Anglo (90.1%).

Resources possess meanings and have relevance

Interviewees identified the intangible meanings they attached to park resources, including:

freedom	patriotism	strength of character
peace	common bond	commemoration
sacrifice	honor	unity
pride	identity	family experience
memories	history	common heroes

Visitors seek something of value for themselves

Visitors came to the park for a variety of reasons. Parents brought children to Washington D. C. for their family vacations. Adults returned to sites they had visited some twenty or more years ago when they were children. Some came to Washington D.C. for business, but took a day off to visit the National Mall. History teachers and history majors came to see first-hand all the subjects they had learned about or taught in the past. International visitors explored U.S. history and heritage by visiting those "must-see" American icons. Local Washingtonians led their out-of-town guests on a tour of D.C. sites. Some fans of Abraham Lincoln came just to have their pictures taken in front of the Lincoln statue as a "pilgrimage." Vietnam War veterans and family members of those who died in the Vietnam War came to commemorate friends and loved ones. A lot of people came to build a connection with the nation's history and to cultivate a sense of being close to history. For many, visiting the National Mall offered an opportunity to reflect upon the ideals upon which America was founded and to rededicate themselves to these ideals. Visitors also expressed interest in interpretive programs that highlight meaningful stories or that make history come alive. Some visitors emphasized that "facts" and "numbers" do not help visitors understand the significance of the site.

Interpretation facilitates a connection between the interests of the visitor and the meanings of the resource.

Many visitors bring to the National Mall a sense of the significance of site resources and a deeply held sense of personal connection to the site. For example, a woman from Alaska stressed,

"Something that strikes me is not just Abraham Lincoln. I have a second cousin whose name we go to see on the Vietnam Wall. Our country stands for not just the heroes like Lincoln but all people. That is what I think of all those monuments. It is really wonderful to live in a country that lifts up Lincoln and my cousin."

The monuments and memorials, which represent past history, remind people of their responsibility to uphold the

pride and heritage of this nation. Another woman expressed her feeling in this way:

"I think connecting with your past can help you plan for your future. You can know what happened in the past and see what's going on in the present and figure out if you want the same thing in the future or not. And they represent a lot. They stand for a lot. They've done a lot of hard work—the people that we've honored. And remembering that, keeping it present, helps us live as a nation, as a whole."

A local Washingtonian expressed the importance of the opportunity of rededication:

"Living in this area, these are the things that I always overlook. But the fact is, these (the Lincoln Memorial, the Korean War Veterans Memorial, and the Vietnam War Veterans Memorial) are one of strongest American symbols. I wanted to come and get as much as information about what they really stand for."

Two women discussed their experience at the monument and memorials as follows:

Woman 1:

I think it brings the actions of the past—brings the history—kind of like they were saying. It renews that for you, brings it to you instead of reading it in a book. . . .

Woman 2:

It's something concrete in the present that you can attach all the things you've read about heard about, you can attach it all to it now. You have something to look at and remember everything that you've learned.

One interviewee highlighted his benefit from the interpretative program that he just received in the Lincoln Memorial as follow:

"You really can get a feeling of it. Like the ranger said, we wonder what would Lincoln think if he walks up to the memorial, because he was not a popular president. A man of his time, he would not expect it. I thought the ranger did a good job to bring all the perspectives of the Vietnam War. The ranger didn't go to the Korean and the Vietnam War, but you can get a sense of them. The grand ideal—righteousness and what war was all about."

A mother expressed her appreciation from the ranger program:

"My observation of the ranger's presentation was: I was wondering how my son was related to it. It was spoken to a way that at least older kids would understand. The ranger put the beginning of the presentation well-pulled to kid's attention!"

Conclusion

This study explored a new approach to interpretive research that is based on (1) understanding the meanings visitors attach to park resources, (2) conducting interpretive training to expand interpreters' knowledge of the audience, and (3) revising park interpretive programs to reflect an expanded understanding of visitor meanings and interests. The method has the potential to test whether increased interpreter knowledge of the audience will facilitate expanded visitor connections. In analyzing research results, the researchers were continually reminded not to underestimate visitors. Park interpreters frequently answer questions like "Where is the restroom?" or "When is the next tourmobile scheduled to arrive?" However, these frequently asked questions do not begin to reflect to deeply held and even profound meanings that visitors often attach to park resources. By asking visitors open-ended questions, we discovered that even something as commonplace as taking a photo in front of the Lincoln Memorial can be someone's lifelong hope. Visiting the monuments and memorials provides an opportunity for visitors to rededicate themselves to the principles and values which these sites represent. The Lincoln Memorial, the Vietnam War Veterans Memorial, and the Korean War Veterans Memorial possess powerful meanings that have relevance to people's lives. Park visitors come to these sites to seek something of value for themselves. They come to get a sense of connection with the past; to experience "the tactile sensation of enjoying history"; to commemorate those who served; and to have an opportunity for rededication and reflection. Preliminary study data suggest that if interpreters better understand the meanings visitors attach to park resources, they will be better able to facilitate a connection between the interests of the visitor and the meanings of the resource. At the National Capital Parks—Central, understanding visitor meanings should contribute to the provision of quality visitor experiences, stimulate an ethic of resource stewardship, and foster a commitment to participatory democracy.

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ROUND TABLES

A ROUNDTABLE: DISCUSSION OF THREE CASE STUDIES INVOLVING TOURISM AND WILDERNESS AREAS

Stephen C. Bentley

M.S. Candidate, Department of Park, Recreation and Tourism Resources, Michigan State University, 131 Natural Resources, East Lansing, MI 48824.

Katharine C. Bloom

M.S. Candidate, Department of Park, Recreation and Tourism Resources, Michigan State University, 131 Natural Resources, East Lansing, MI 48824.

Mark Gleason

Ph.D. Candidate, Department of Park, Recreation and Tourism Resources, Michigan State University, 131 Natural Resources, East Lansing, MI 48824.

Abstract: Wilderness can be thought of in several different ways - from the Federally designated type to the International view. In this roundtable discussion, three case studies were presented describing three different influences of tourism on wilderness areas, from a very large national park in Africa to a Federally designated Wilderness Area in Lake Superior to a national recreation area in the eastern United States. Combined, these three case studies describe vastly different situations and the impacts that tourism has in those situations.

Introduction

The following roundtable discussion was presented by the authors at the 1999 NERR conference. The topic of this discussion was Management Issues in Tourism and Wilderness. For the purpose of this presentation, three case studies were chosen and compared. They were Isle Royale National Park (IRNP), the Delaware Water Gap National Recreation Area (DWGNRA), and Maasai Mara National Reserve in Kenya, East Africa. These three areas represent different types of wilderness areas which attract visitors who have varied impacts on the resource.

A comparison of the size, designation, number of annual visitors, and types of use in the three areas reveals the following. Varying in size from the 70,000 acres of the Delaware Water Gap to the 571,790 acres of Isle Royale to the over 4 million acres of Maasai Mara, these areas attract anywhere from the 20,000 visitors to Isle Royale to the 200,000 at Maasai Mara to approximately 5 million at Delaware Water Gap. Each of these areas represent differing types of wilderness that attract people who want a variety of experiences. Isle Royale attracts people that are mainly interested in a wilderness experience that could include hiking, camping and boating in a federally

designated Wilderness. Delaware Water Gap, as a National Recreation Area, is attractive to those people who are interested in water and land based recreation. Land based safaris are the main attraction at Maasai Mara, a National Reserve set aside for the preservation of wildlife in Kenya.

Whatever the type of wilderness, there are significant benefits for the world and its environment that can include but are not limited to the following: scientific value for research and education, watershed protection, historical and cultural preservation, spiritual and aesthetic benefits, and recreation. Some of the threats to wilderness areas across the world include human disturbance, heavy and inappropriate recreational use, overcrowding, air and water pollution, and the use of recreational vehicles.

Isle Royale National Park (IRNP)

Isle Royale National Park is an archipelago of approximately 400 islands, located in the northwest corner of Lake Superior. It is Michigan's only National Park and is part of a Park system that includes Pictured Rocks and Sleeping Bear Dunes National Lakeshores. While each of the Lakeshores receive hundreds of thousands of visitors each year, Isle Royale has fewer than 20,000. The largest user group at Isle Royale are backpackers, with powerboaters being a distant second. The Park's total size is approximately 571,790 acres, of which 133,781 acres are of land with 132,018 of those being a designated Wilderness. Approximately 80% of IRNP is made up of Lake Superior surface water as the boundaries of the Park extend four and one-half miles into the Lake from the islands (Isle Royale National Park Pamphlet, 1997). The Federal government, in recognizing the importance of IRNP's natural resources, designated 99% of it as Wilderness. The Park also has numerous cultural resources as is evidenced by numerous shipwrecks, fishing village remains, and lighthouses. IRNP has a long history of maritime activities which began with the arrival of Native Americans, followed by the Voyageurs, European miners and fishermen, up to the present day tourists.

Isle Royale's Cultural and Maritime Heritage

To mark shoals, islands, and the entrances to harbors, three lighthouses were built in the mid to late 1800s with a fourth being built in the early 1900s. These lighthouses proved invaluable to shipping on Lake Superior. The lighthouses are Rock Harbor Light built in 1855, Isle Royale Light in 1875, Passage Island Light in 1882, and the Rock of Ages Light in 1908. Of these four lighthouses, only the Rock Harbor Light ceased to operate after a few years. The other three were automated and continue to operate today. The National Park Service has established a maritime museum within the Rock Harbor Lighthouse.

These lighthouses were important due to the arrival of the mining population and as the maritime traffic around the islands grew. Larger vessels were making more frequent trips to supply the population and to transport fish and copper off the islands. It was during this time period that

settlements of commercial fishing families were established. A few of the present property holders at IRNP feel they can trace their connection with the Island to this time period, but their strongest connection is to a later group that arrived at the turn of the century. Prior to that time, the American Fur Company established eight fishing camps at Isle Royale between 1837-39. These eight camps employed more than thirty fishermen. Commercial fishing reached its peak in the 1880s with nearly thirty camps established on Isle Royale. At least one of these camps was occupied year round (DuFresne, 1984).

The maritime heritage of Isle Royale also includes a large number of boats and ships that have been wrecked on the shoals and shores of these islands. Numerous small craft have been both lost and deserted within Park boundaries. The Lake Superior waters surrounding IRNP have a large number of shipwrecks, of which ten have been located, identified and studied.

Tourism at Isle Royale

In the late 1800s, a new group of summer visitors arrived at Isle Royale by ship. Those individuals represented the beginning of the tourist industry at Isle Royale. Isle Royale fishermen established the first resort in 1894, the John's Hotel (Cochrane, 1990). These early tourists participated in many of the same activities as present day tourists such as hiking, fishing, boating, and observing nature. In the early 1900s, summer cottages and hotel establishments were built to accommodate these tourists coming from Michigan, Wisconsin, and Minnesota. Tourists of this time period generally stayed on the island for longer blocks of time than the four days that present-day visitors average, possibly due to the fact that it took about two days passage to get from Duluth, MN to Washington Harbor on the southwest end of Isle Royale.

Modern day visitors continue to add to the maritime history of the IRNP by arriving at the island, usually by boat, and touring the island by small craft. Of the 16,574 people who visited the island in 1996, approximately 85% arrived by boat, many on the NPS's *Ranger III* passenger and supply boat (Greg Blust, Park Staff Interview, 1997). Park visitors have expressed an interest in learning more about the maritime heritage of Isle Royale as shown through the attendance at NPS interpretive programs.

Tourism and Wilderness

In reviewing the Isle Royale example, natural resource managers could look to the interpretive activities that are connected to two of the lighthouses, the Rock Harbor and Passage Island Lights. The Rock Harbor Light has a maritime museum located in the Lighthouse Keeper's home that is attached to the tower. The museum has displays which cover the maritime history of the island. The tower itself is open to the public and provides views to the entrance of Rock Harbor. It is surrounded by federally designated Wilderness and is visited by tourists who primarily arrive by boat. Passage Island, which includes

the Passage Island Light, is used for interpretive walks guided by National Park Rangers. These guided walks also provide information to visitors about the maritime heritage of Isle Royale. Both visits to the Rock Harbor museum and the Passage Island guided walks assist visitors in their understanding of IRNP's maritime heritage. The impact by visitors on the resource has been limited due to the Park's management of these areas. This limiting of impacts has been achieved through the use of trails and guided walks which direct the visitors to a smaller sized area.

Delaware Water Gap National Recreation Area - (DEWA)

Among the congestion of the great megalopolis of the northeast United States lies one of America's many overlooked natural and cultural treasures. The Delaware Water Gap National Recreation Area (DEWA) is one of the last greenway corridors remaining in the northeast. DEWA is located in the tri-state area of New York, New Jersey and Pennsylvania. Its unique combination of natural and cultural resources offer numerous recreational opportunities for the public to enjoy in one of our most urbanized regions of the country. The significance statements below, describing the outstanding features of DEWA were taken from its 1998 Long Range Interpretive Plan:

- Delaware River waters are of exceptional quality; it is one of the last free-flowing rivers on the eastern seaboard; and, the river offers outstanding recreational and scenic opportunities. The approximately 40 miles of river within the boundaries of the Delaware Water Gap National Recreation Area have been designated the Middle Delaware Scenic and Recreational River, a unit of the National Wild and Scenic River system.
- As one of the largest public open spaces remaining in the northeast metropolitan corridor, the Delaware Water Gap NRA provides a broad diversity of exceptional, unique and close-to-home recreational opportunities for the more than 60 million people who live within a 6 hour drive of the park.
- Open space combined with other regional protection and preservation initiatives creates a multi-state greenway corridor which preserves essential habitat for the sustained health of plant and animal communities, including potentially threatened species, in the region.
- DEWA contains the most significant concentration and diversity of known archeological resources, from prehistoric to historic, in the northeast US, as well as outstanding examples of Native American and European settlement manifested by diverse cultural landscapes and structures.
- Over 4 million visitors a year, in top ten of most visited NPS units in the US.

Residential Development Threats to DEWA

Over the last decade the pocono mountain region of northeast Pennsylvania has witnessed an explosion in its population growth. According to the US Census (1998),

the two counties in PA, Pike and Monroe, in which a majority of the park lies have had their population almost double since 1990. Pike County's population has risen 43.6% since 1990 and Monroe 31.2%. A Social Science Research Plan for DEWA was completed in 1991. The plan outlines social science needs and priorities based on legislation and policy documents, interviews with park staff, other NPS officials and a nominal group workshop held at the recreation area. In 1994 and 1996 a research project was proposed by DEWA to study regional population changes. Population change information is necessary as it relates to park visitation and regional development for transportation and other infrastructure as well as residential and commercial development.

The pocono mountain region of Pennsylvania is only 80 miles from New York City and even less from the New Jersey locations. It is an hour or less drive for many commuters. Why would people choose to live and raise a family in the congestion of urban life when they could have own a few acres of lakefront property in the poconos? "A practical reason for this area's appeal is that home prices have dropped 30 percent since 1988. A 19th century farm on 4 acres of land might go for around \$225,000; lakefront homes start at \$85,000 and soar more than \$500,000 in posher developments. --- and property taxes, which have doubled in 10 years, are expected to keep rising as the growing population stretches resources." (Smith, Tharp, Hannon, McGraw 1995) This rural life atmosphere is very attractive to people who have lived or worked in urban areas their entire life.

Another reason for the residential development of the poconos is the increase in second-home purchases. "In a 1995 study by the American Resort Development Association, 35% of those surveyed thought there was a good chance that they would buy a second home in the next decade (up from 16% in 1990)." (Sherman and Ghani, 1995). According to Charski (1998) The second-home allure is catching. Homes that are used only seasonally now number 3.2 million, according to the Census Bureau, up from 3 million five years ago. The economy is largely responsible; interest rates are low, and getting a mortgage for a second home that won't be rented out or otherwise used as an investment is now as easy to get as one for a primary home, says Neill Fendly, vice president of the National Association of Mortgage Brokers. The combination of the many attractions of the poconos which include, skiing (both downhill and cross-country), arts, fine dining and etc., gives this area an appeal that is tempting for anyone.

Recreation at DEWA

"The mission of the Delaware Water Gap National Recreation Area is to provide outdoor recreation opportunities while conserving the natural, cultural and scenic resources of the Recreation Area by working cooperatively with

surrounding communities and the public to achieve conservation goals for the Delaware River Region" (Statement for Management, DWGNRA, 1997)

As stated in the mission of DEWA, providing an outdoor recreation experience to the public and minimizing the impacts on the environment are it's chief concern. With the wide variety of interested parties (hikers, birders, mountain bikers, horseback riders, boaters, swimmers and etc.), how does a manager do this?

DEWA contains nearly 40 miles of the Delaware River which provides drinking water to almost 10 percent of the US population. Being a part of the National Wild and Scenic Rivers System gives DEWA the opportunity to provide a quality water-based recreation experience to visitors. This stretch of river is a favorite for canoeist and kayakers. For over night users on the river, there are over 100 river-campsites available for users. Fishing enthusiasts enjoy the opportunity to catch chad, smallmouth bass, walleye, and muskey. The park also contains two public beaches which attracts many visitors from the New York and New Jersey areas.

Besides the extensive water-based recreation opportunities at DEWA there lies many other outdoor recreation possibilities. Hikers and backpackers find that the park provides numerous treasures for them. Over 20 miles of the Appalachian Trail runs through DEWA. Scenic vistas, dozens of waterfalls and pristine hemlock ravines gives visitors a unique experience while on the trail. Mountain biking trails were recently added to the recreation area the last two years. A new addition to the park will be the proposed river valley trail. The river valley trail will be a multiple-use trail that a majority of it runs along the river. This multiple-use trail will be paved with an artificial surface for rollerbladers, wheelchair users and bicyclists. According to DeNise Cooke Chief of Research and Resource Planning at DEWA, locations that it will not be along the river are prime Bald Eagle habitat, rare plant habitat and etc.

Tourism and DEWA

Managers and researchers might dispute the fact that tourism has had its impact on DEWA. While much of the park borders private and residential housing, a portion borders commercial development as well. More than one hotel and resort community borders DEWA's boundaries. This gives direct access to park resources that could be impossible to monitor. Canoe liveries and adventure outfitters might be the most serious threat to DEWA. Canoeists, rafters and water skiers enjoy the pristine waters of the Delaware River. For this reason dozens of liveries and outfitters have flourished in the Poconos Area. Over used campsites, litter, and abuse of resources are just a few results of the booming adventure recreation industry. Sewer Treatment Plants (STP's) also pose a threat to DEWA. The enormous expansion of residential and commercial entities calls for a stronger infrastructure. The STP's discharge is

usually only one tributary aware from being directly emitted into the Delaware River.

Small water parks, professional golf courses and family oriented resorts are the primary tourists attractions for this area. The tourism contributions to the poconos both socially and financially are significant. According to the US Travel Data Center (1998), the tourism industry in the poconos generated over 1 billion dollars in sales, 18 thousand jobs and 257 million dollars in payroll revenue.

Recommendations for DEWA

- **Focus on existing resources vs new development-** "In the last four years, the Delaware Water Gap NRA alone has received more funding for new buildings and trails than Yellow Stone, Grand Teton, Glacier and all other national parks in Wyoming, Idaho, and Montana combined." (Mackay, 1998)
- **Acquisition of buffer greenways near park boundaries-** Because residential and commercial development is becoming more of a threat to DEWA's resources, acquiring buffer zones near vital park resources could help protect them
- **Monitor and more control of Delaware River use-** Limiting the number of canoes discharged by liveries could reduce over use, litter and misuse of resources. This might be done by a permitting system.
- **Develop of a VIM plan (Visitor Impact Management)-** Having a high visitor attendance rate, being near residential and commercial development and having the designation of a outdoor recreation provider are just a few reasons to design and implement a VIM for the Delaware Water Gap NRA.

Maasai Mara National Reserve

Maasai Mara National Reserve, located in the southwest corner of Kenya in the Narok District and bordering the Serengetti in Tanzania, is one of the most highly used of Kenya's 57 National Parks, Reserves and Protected Areas. Originally designated as a game reserve in 1948, it has been named a National Reserve as well as a World Heritage Site by the IUCN. Made up of 1,672 sq kilometers (4 million acres), it has both inner and outer reserve areas which experience different uses and use rates (Kenya Web, 1999). The Mara, as it is commonly referred to, is made up of open grasslands with patches of acacia woodland, thickets and riverine forests. It has a well-deserved reputation as a hotspot for wildlife, mainly because it hosts over 250,000 zebra, strong populations of the big five (rhino, elephant, lion, cape buffalo, and leopard), prolific bird life including 57 species of prey, and the great migration, in which some 1.3 million wildebeest migrate north following the rains (Gakahu, 1992). The Mara, like all of Kenya's National Parks and Reserves, is managed by the Kenyan Wildlife Service, under the authority of the Ministry of Wildlife and Narok County Council.

Tourism in Kenya and Maasai Mara

Tourism is the number one foreign exchange earner in Kenya, totaling about \$140 million per year (Gakahu, 1992). It brings in over 1 million visitors a year, many of whom travel to Kenya's National Parks, Reserves, and Protected Areas. The Ministry of Tourism actively manages tourism in Kenya, while the Kenya Association of Tourism Operators (KATO) manages the numbers and types of safaris offered as well as the tour operators. Kenya has a policy whereby tourism and conservation are managed based upon the benefits they will provide to the local people as well as the entire country. In effect, wildlife tourism pays for much of the conservation work occurring throughout the country.

Maasai Mara National Reserve absorbs approximately 27% of all visitors to Kenya. It receives over 200,000 visitors per year, more than any other park in all of East Africa. Visitation to the Mara is increasing at approximately 9% a year, or 19,000 additional people, with each visitor staying an average of 2.5 days (Gakahu, 1992). There are 17 facilities that have been created to accommodate these visitors, the majority having been built since 1962. Six of these lodges or camps are located within the outer portion of the reserve and are capable of accommodating some 600 visitors a night. Eleven of the facilities are located just outside the reserve and can accommodate up to 890 visitors per night. Visitors come to the Mara largely with two expectations in mind: (1) that they will be able to view an abundance and diversity of species along with scenic vistas, and (2) that they have competent staff and service. The majority of tourism within the Mara, as well as most protected areas in Kenya, is based around land-based safaris.

Issues Arising from Tourism in the Mara

Since the majority of tourist experiences within Maasai Mara involve land-based safaris in which groups of people view wildlife through open-roofed vans or land rovers, the majority of the issues arising from tourism are related to ecological and social issues. The ecological issues include the degradation of grasses, soil compaction, and wildlife becoming desensitized to humans, while the social issues include a decline in the quality of the experience, vehicle congestion and concentration within an area, and the vehicular constriction of wildlife.

The ecological impacts related to tourism within the Mara can be directly to the use of vehicles for safaris. Though the Mara has 582.4 km of roads, a high amount of use occurs on unrecognized tracks that have been established through safari drivers going off road. Degradation of the grasses and soil compaction are impacts caused by both the use of these off road tracks along with a high concentration of vehicles within a rather small area of the reserve. The majority of tourism within the Mara occurs on land that is located in the outer part of the reserve, near the concentration of lodges and camps. Overall damage estimates to vegetative cover based upon these vehicular

uses of the reserve is estimated at about 15.3% (Gakahu, 1992). Another ecological impact that can be associated with the vehicular use of the Mara is the desensitizing of the wildlife to humans and their vehicles. This desensitization is made worse by two factors: (1) the high concentration of use that occurs within the outer portion of the reserve, where wildlife is more exposed to humans, and (2) acts such as safari drivers who radio each other with the locations of wildlife species which subsequently allows for the surrounding of wildlife.

Social impacts arising from the influx of tourism within the Mara are based around a decline in the quality of the visitor experience and may include vehicular congestion and concentration within an area, and vehicular constriction of wildlife. People tend to visit Kenya to view wildlife in its natural state. A decline in the quality of the visitor experience can be caused when such occurrences as vehicular concentration within an area or the surrounding of wildlife by a number of vans happen. With more visitation and without further action, it is possible that occurrences such as these will happen with increasing frequency. Vehicular congestion and concentration, like that occurring in our National Parks, may also degrade the quality of the wildlife viewing experience through not only desensitizing wildlife to humans and vehicles, but also through the interruption of natural wildlife behaviors and through scars left on the land through off road driving. With a decline in the quality of the visitor experience, it can be assumed that there will be a future decline in the visitation to the reserve and thereby put wildlife conservation in serious jeopardy.

Recommendations for the management of tourism and wildlife

With wildlife conservation and tourism being interconnected such as they are in the Mara and Kenya, it is important that they are managed in a fashion that will produce benefits for both while allowing for their future sustainability. Some factors that might enhance the future of these two fields in Kenya include the following:

- **Education:** of the drivers as well as the tourists in terms of regulations, other wildlife areas to visit, as well as the impacts of their visit to the parks and on wildlife.
- **Stricter Regulations:** again for both drivers and tourists in terms of going off-road, the use of radios, and the surrounding of wildlife, etc. including monetary penalties, license restrictions, operator fines, etc.
- **Visitor Assessment and Capacity Studies:** study the conservation areas and develop frameworks for visitation to those areas including carrying capacities and visitor impact management.

Conclusion

Isle Royale National Park, Delaware Water Gap National Recreation Area and Maasai Mara National Reserve all represent various types of wilderness from the Federally

designated variety to the international variety. While each case study presented has its own intricacies, there are numerous similarities which revolve around the impacts that tourism has on the resource and its management. The discussion following the presentation of the case studies revolved around the following points:

- the development of partnerships
- how managers protect resources while providing for tourism
- impacts of motorized vs. nonmotorized tourism
- future implications

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ALTERNATIVE TOURISM: GAY AND LESBIAN TRAVELERS – A VIABLE HIDDEN MARKET

Kimberly Monk

Assistant Professor of Tourism Management, New Hampshire College, 2500 North River Road, Manchester, NH 03106

Lisa Dingman

Junior, Tourism Management, New Hampshire College, 2500 North River Road, Manchester, NH 03106

Abstract: Continued growth of the tourism industry into the new century will be accompanied by changes in the nature of tourism itself. It has become impossible today to read a trade publication without reading the words: "Specialize to survive." While accounting for a sizable portion of tourism activity, most tourism authorities have not targeted the gay and lesbian market, and it is the least examined segment of the tourism industry.

This paper focuses on the hidden market - that of the gay and lesbian travelers - and highlights a number of key issues concerning tourism marketing and strategic planning. These issues include:

1. The importance of gay and lesbian travel to the local tourism market mix
 2. The role of three local government tourism agencies and their communities in attracting this lucrative market to their cities
 3. The importance of suppliers' support
 4. The importance of timely, accurate and reliable market data to underpin the development of any marketing strategy.
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Introduction

Niche marketing – "what everyone does today"

Host cities seek to attract tourists to their area because of the potential for improving existing economic and social conditions. Miami Beach, Montreal and Palm Springs are popular centers for the gay visitor, currently hosting conventions/conferences, festivals and parades. Attempts by the tourist boards of these cities to promote gay and lesbian travel have proven to be very successful. The existence of gay tourism illustrates the diversity of tourism, as well as the diversity of motives and activities of tourists. These cities have active gay populations, and a tradition of welcoming gay and lesbian visitors.

This market is being targeted for:

1. Overnight stays
2. Conventions
3. Gay games, parades and festivals

To ensure visibility, cities, suppliers and marketers are reaching this market by:

1. Advertising in gay publications
2. Developing specific travel material
3. Sponsoring AIDS organizations, benefits and other issues relating to the community
4. Joining gay organizations

According to a survey of participants who attended *The Gay Games IV*, held in New York City in June of 1994, gay consumers notice and appreciate marketers who make direct efforts to reach them. **Eighty-four percent** say they intentionally purchase products that are advertised in gay media, and they reward companies for reaching out to them (Mulryan, 1995).

Alternative tourism

The definition of the traditional family is changing. There has been a sharp decline in the nuclear family and an increase in blended families. We are now in an era of increased sexual liberalization - the recognition of an alternative lifestyle. This market is growing as a result of greater social permissiveness, the gay pride movement, and more homosexuals (especially lesbian women) who openly develop families, conceive or adopt children and build quasi-traditional families (Morgan & Pritchard, 1998).

Travel Trends

The Advocate, a national gay and lesbian magazine, commissioned Simmons Market Research for a survey of its readers' travel habits. The magazine has 72,000 subscribers. Among the findings of the 1994 survey:

- 92% of *The Advocate* readers took domestic trips during 1993; the average number of trips taken was 7
- 72% took domestic flights during 1993; the average number of flights was 5.8
- 58% took foreign trips during the last three years; the average number of trips taken during 1993 was 3.5
- 78% stayed at a nongay hotel, motel or resort in 1993; the average number of nights stayed was 16.2
- 37% stayed at a gay hotel, motel or resort in 1993; the average number of nights stayed was 7.2
- 57% rented a car in 1993, the average number of car rentals was 4.6
- 51% are enrolled in a frequent flyer program (Travel Weekly, 1994)

Why is this market being pursued?

The trend to tap the gay market reflects the saturation of the current market place, and the fact that this group has become more visible. The gay tourism market includes a potentially large market of upscale, well-educated professionals

- In the United States, almost 40% of unmarried partners of homosexuals hold a college degree, compared to 18% of unmarried heterosexual partners and 13% of married spouses

- 86% of the partners of gay men and 81% of the partners of gay women have more than a high school education; 74% of heterosexual unmarried partners have a high school diploma
- Readers of gay magazines also have an upscale profile: 7% have doctoral degrees, compared to less than 1% of the general US population. Their median income in 1992 was \$51,300, compared to the national average of \$30,050

As a result, in the late 1990s this high-income, free spending gay and lesbian community, the so-called "pink-pound," has become the latest target of mainstream marketers as a viable consumer group (Morgan & Pritchard, 1998), and is being described as the "closest thing to a recession-proof market" (Kasrel, 1997).

John D'Allessandro, president of The International Gay and Lesbian Travel Association (IGLTA) supports the following claim:

1. The majority of gay and lesbian households are dual income. When a couple involves two males, they generally have higher than average household incomes
2. This group is less likely to have children, and so there is more discretionary income and more leisure time to travel
3. Gays and lesbians are more prone to travel than their mainstream counterparts, taking 162 million trips in 1996. Business trips accounted for 127 million, and vacations were 35 million

Purchasing Power

The motives and actions of gay and lesbian travelers are often different from other types of tourists. Gay tourists tend to be "hyper consumers" who not only consume more, but also influence the purchases of their gay and straight friends and colleagues, thus providing word-of-mouth endorsements for products, brands and companies (Mulryan, 1995).

Gays are also extremely brand loyal. Surveys show they are especially appreciative of good service, and, if pleased, will return to a restaurant, hotel or resort again and again. For example, Miami's tourism officials noticed that gays were coming to visit even as less hardy travelers were being scared off by the area's troubles (Drummond, 1995).

The Tourism Industry Intelligence suggests that an estimated 525 million gay men and lesbians spend more than US\$10 billion on travel products each year.

Tourism in Cities

Being gay or lesbian influences choices of accommodations, nightlife, dining, shopping, and sometimes, sightseeing. The physical presence of the tourist alters the atmosphere and appearance of a location. Some of the changes that tourism produces may be predictable; some may be unexpected. For those involved in the business of developing tourism, the issues are how to successfully manage the change and the people affected by

the change, and to how judge what benefits accrue to appropriate stakeholders.

In using the space of urban areas, tourists transform that space in both the material and symbolic sense (Ashworth and Dietvorst, 1995). In the case of gay and lesbian tourists, transformation is the consequence of a group of people who are often marginalized by society.

Gay and lesbian tourism activity may seem to center around sexual encounters. Examination of previous (and sometimes current) gay press and its advertising (brochures referencing nudist beaches, pick-up places and the like) confirms this impression. Cities, however, are now modifying this perception; references to nightlife, clubs and bars have been discreet and emphasis has been placed on historical and cultural attractions.

Tourism in a city is related to a combination of its primary (core) and secondary elements. The primary elements, those that constitute the major attractions, have two components: "activity place" and "leisure setting." The activity place is composed of the attractions that most cities offer, such as museums, art galleries, historic sites and theaters. The leisure setting is the physical and social-cultural context within which the attractions are set, the overall spatial structure of the city and its ambiance.

Primary (core) elements

Secondary elements

Historical (including buildings)

Shopping, Cafes, Bars,

Cultural (including museum and lifestyle)

Restaurants, Hotels, Entertainment

Outdoor recreation (including parks)

Source: Based on Jansen-Verbeke (1994)

Impact

General tourists are, in large part, unaffected by the material manifestations of gay tourism (bars, clubs, etc.), as these are not dominant features of most mainstream activity space. Tourists are usually not given the opportunity to be affronted by a gay image of the city even though they may be aware of the reality. In addition, for tourism to thrive in an area it needs support from the area's residents.

Impacts of tourism refer to the ways in which tourism is perceived to contribute to changes in value systems, individual behavior, family relations, collective lifestyles, and public safety, among others and is usually measured in three ways:

Social - local language and cultural effects, lifestyle changes

Environmental - carrying capacity and the protection of natural resources

Economic - the benefits and costs that accrue to a destination

Positive Social Impacts

1. Improves understanding and image of different communities or cultures (Milman and Pizam 1998)
2. Promotes cultural exchange (Liu and Var, 1986)
3. Facilitates meeting visitors (Liu and Var, 1986)
4. Increases demand for historical and cultural exhibits (Liu and Var, 1986)

Positive Environmental Impacts

1. Preservation of historic buildings and monuments
2. Improvement of the area's appearance (Perdue, Long and Allen, 1990)
3. Preservation of the natural environment (Sethna and Richmond, 1978)

Positive Economic Impacts

1. Contributes to income and standard of living (Milman and Pizam, 1998)
2. Increases employment opportunities (Milman and Pizam, 1998)
3. Increases government revenue; federal, state, local (Gunn, 1993)
4. Improves the local economy (Perdue, Long and Allen, 1990)
5. Improves investment, development and infrastructure spending in the economy (Liu and Var, 1986)

Suppliers of tourist services may also cause a city, in whole or in part, to be transformed both materially and symbolically. The existence of bars, hotels, restaurants and the like, codes the city and alters its image. Places become positioned and constructed as sites of pleasure (Tyler, Guerrier and Robertson, 1998). Due to this upscale clientele, cities are striving to improve excellence in accommodations, bars, restaurants, cafes and attractions.

Supplement 1.1 - Travel Industry Suppliers

While some suppliers fear the political implications of catering specifically to the gay and lesbian community, others find that the demographics alone make the market a lucrative one to exploit (Travel Weekly, 1994).

It is important to note that marketing to gays and lesbians may involve coming up with a gay-specific product, which may or may not make sense. An example would be an African Safari; there are no gay specific activities attached, only the assurance that the people traveling are either gay or gay-friendly.

"The demographics of the gay market are perfect," said Marsha Butler, director of travel industry affairs for Northwest Airlines. The airline industry has been most active of the mainstream suppliers in courting gay businesses.

Below are examples of mainstream suppliers that are pursuing or have taken actions the gay community considers "gay-friendly":

Airlines

American Airlines

- The first airline and the first company in the Fortune 100 to have a specific marketing department devoted exclusively to gay and lesbian consumers
- Applauded for offering bereavement fares to gay couples
- Has been named the top gay-friendly airline two years in a row by the gay travel newsletter *Out & About*

"We realize that gay and lesbian people travel an awful lot," says American Airlines spokesman Tim Kincaid. He conservatively estimates American sells \$150 million in tickets annually to travelers going on gay related holidays. Of this group:

- 74% took holidays abroad
- 21 % vacationed on their own
- 43% vacationed with partners (Sasha, 1997)

Virgin Atlantic Airways

- After running advertisements featuring a male couple in *Out & About* and *The Advocate*, the nation's two most prominent gay magazines, Virgin received 250 thank you letters from gay and lesbian travelers as well as several bookings, including one from an individual for a block of 50 seats (Sasha, 1997)
- Offers packages tailored to the gay and lesbian market
- Donates tickets to various events benefiting gay and lesbian groups
- Commended for its industry-leading policies towards gay travelers and outreach to the gay community

"It's a business decision," said Bill King, North America vice president of sales for Virgin.

Continental Airlines

- Recipient of a 1994 *Out & About* Editors Choice Award for sponsoring the Gay Games IV, and for its participation in several gay and lesbian travel expos

Qantas Airways

- 1996 - sponsored IGLTA's convention to Sydney

Travel Guides

Fodor's Gay Guide to the USA - division of Fodor's Travel Publication, Inc.

Travel Companies

TBI - wholesale tour division of Japan Travel Bureau

ZMAX Travel - representative of American Express Travel Division

Certified Vacations - in collaboration with Men on Vacation, a San Diego tour operator

Car Rental Companies

National Car Rental

Avis Car Rental

Cruise Lines

Carnival Cruise Lines

Supplement 1.2 – Gay Tourism in Miami Beach

Coming out in Genre magazine this fall: Miami Beach. As part of a special promotion, the city of Miami Beach and the Greater Miami Convention and Visitors Bureau featured two full-page color ads, a consumer contest and a travel story in September and October 1998 touting Miami Beach as a gay tourist stop. In exchange for the publicity, worth about \$15,000 in advertising, the city and convention bureau played host to the magazine's editors, showing them the city's shops, stores, restaurants and gay-friendly arts and culture scene (Diaz, 1998).

In 1991, the Miami Beach City Commission passed unanimously a Human Rights Ordinance, and in October 1998 passed a Domestic Partnership Ordinance for all city employees. Billy Kolber, editor of *Out and About*, ranks Miami as the number three travel destination behind San Francisco and New York for the gay tourists. In the '50s, disenchanted Northeasters, many of them gay, began to discover Miami Beach. Film and fashion folks fell in love with the historic "Deco District," and several gay discos were opened. Old properties were refurbished and first-rate eateries established.

As the number of visitors dropped in 1994, there was one conspicuous bright spot: gay tourists with money to spend flocked Miami Beach by the thousands (Time Magazine, 1997). Tourism officials wanted the world to know all about their good fortune; "The gay and lesbian destination of the nineties," claims a published brochure from the South Beach Business Guild, which was established to support and promote gay tourism.

The gay travel dollars for 1997 was estimated at \$17 billion. Miami Beach tourism officials hoping to lure more of those tourists to Miami Beach targeted the readers of *Genre Magazine*. According to Jose Lima, media relations' manager for the Greater Miami Convention and Visitors Bureau, "it is not an ideological or political thing at all, but about hard dollars:

- 93% of *Genre* readers travel throughout the year
- The average income is about \$92,000
- 30% of gay men and 36% of lesbians stayed in a resort in 1997" (Diaz, 1998)

Michael Aller, Tourism and Convention Director/Chief of Protocol, believes it is a wonderful opportunity for Miami Beach to be promoted in a nationally gay publication, as it is a city where gays can be comfortable and will not be discriminated against. Thriving guesthouses, shops and restaurants prove that gay tourists will spend a lot when they feel welcome.

During a phone interview with Mr. George Neary, Director of Cultural Tourism, he cited that Miami Beach spends a portion of its tourism budget targeting gay visitors. He strongly believes that with local events such as the winter

party and the white party each reaching an audience of 4,000 - 7,000 visitors annually, it would be foolish not to.

Supplement 1.3 – Gay Tourism in Montreal

In 1998, Montreal's marketing theme was the "Year of Gay Quebec." With the variety of gay events and festivals, Montreal is becoming very popular on the gay international scene, and in trying to capture the gay and lesbian tourists, markets itself as a "European Destination" without traveling across the world (Montreal Chamber of Commerce, 1998).

Tourism promotion is coordinated by Tourisme Montreal, a non-profit organization, which works to raise the profile of Montreal as a destination among the tourism directors of Canadian, American and International associations, as well as convention and conference planners, representatives of major corporations and motivation travel agencies. Today, expanded markets include all of the United States, Canada, French-speaking Europe and Japan.

Montreal is proud of being the home to several popular gay events/attractions:

1. Black and Blue, the most popular North American Circuit Party with an annual estimated revenue of CAD \$15 million
2. The Festival Images and Nations, the third most important gay film festival in North America
3. Le complexe Hotel Bourbon, the biggest gay entertainment complex in the world

Montreal is often called the Northern Miami because of its diversity, ethnic mix and Latin way of life. The following months are preferred for visits by the gay tourists; events and attractions are offered accordingly:

- 46% visit in September
- 42% in May and June
- 41% in July
- 40% in August and October (Montreal Chamber of Commerce, 1998)

Supplement 1.4 – Gay Tourism in Palm Springs

Palm Springs boasts a very large "native" gay population, is considered one of the few true "year-round gay resorts," and is among the current top four American destinations for gay travelers (Lenkert, Poole & Yares, 1998). Long a mecca for the gay traveler, the city's gay theaters, restaurants, hotels, bars and clubs are a respected and valued part of its culture and add significantly to its colorful, diverse spirit.

The city of Palm Springs actively promotes gay tourism and promises that gay visitors are accepted, not merely tolerated. Bed tax revenue grew about 11 percent between 1995 and 1996, numbers that can be attributed directly to the gay-oriented hotels. As a result, in 1997, the Palm Springs Tourism Division agreed to spend \$45,000 per fiscal year to attract gay and lesbian tourists to the area. This is in collaboration with the Tourism Guild (made up of

gay-owned or gay-friendly tourism businesses), which has agreed to spend \$50,000 of its own funds on the campaign. In effect, they decided to create a gay tourism bureau (Business News, 1997).

According to Murrel Foster, director of the Palm Springs Tourism Division, "the gay population, though relatively small is worth pursuing. An excellent niche market with money to spend; no children involved and so disposable income is usually very high". The gay tourism dollar is courted as aggressively as straight spending.

Palm Springs Tourism, the city's tourism marketing organization, continues to set the pace for niche marketing to the gay community by advertising in 20 gay publications and attending the IGLTA travel show.

Collection of Data

A number of approaches for collecting material for this paper were considered. Despite the sensitivity of issues relating to sexuality, approaches such as interviews and questionnaires are commonly used. The authors of this paper chose to derive data by:

- Observation
- Primary documents such as brochures and guidebooks
- Secondary materials such as research papers and research reports
- Interviews with Directors of Convention & Visitors Bureaus and City Marketers.

Examples of interview questions:

1. How do you position and properly weigh the presence of this market in an overall tourism marketing effort?
2. In your attempts to identify and reach this market, were homosexual images presented in state tourism promotion material?
3. How are economic benefits of this alternative market recognized and measured?
4. The three cities (Miami Beach, Montreal and Palm Springs) were also asked to identify the number of "alternative" visitors, reason for visit; business, leisure, convention/special events, and spending power of visitors

While the cities could not provide published statistics on gay tourism, each agreed that a once-ignored community is now being tapped for its economic potential.

Conclusion

As more travel agencies are feeling the effects of the commission cap, and as cities are seeking to increase bed taxes and meeting revenues, there is a growing interest to increase market share through niche marketing. The emergence of this market will have significant implications for the tourism industry. Marketers can no longer describe and target consumers in simple terms. To ensure success, they must develop sophisticated marketing strategies.

While gay and lesbians welcome this new acceptance, homophobia will not disappear from the American

landscape. Heterosexuality remains the norm against which others are measured, a fact that has profound implications for the tourism experiences of gay people. As Miami Beach Mayor Seymour Gelber puts it, "Gays pay like everyone else. We're glad they are here"(Drummond, 1995).

To quantify anything in relation to the gay market can be difficult because it is a question of whether or not a person is out. However, it has been proven that this is an important market, demanding high standards and value for their money. They are today's discerning travelers: they have above average incomes, higher education levels and a marked inclination to travel.

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POSTER SESSION

USE OF QUALITATIVE DATA ANALYSIS TOOL TO UNDERSTAND THE RELATIONSHIP BETWEEN RECREATIONAL FISHING AND OPEN OCEAN AQUACULTURE DEVELOPMENT

Angela Wright

Undergraduate in Geography, University of New
Hampshire, 1st Floor James Hall, 56 College Road, Durham
NH 03824

Dr. Robert A. Robertson

Associate Professor, Department of Resource Economics
and Development, University of New Hampshire, 317
James Hall, 56 College Road, Durham NH 03824

Abstract: The focus of this paper is to emphasize the role that social science research, specifically through the use of qualitative data analysis software, can be of importance in understanding the views of local people that may be affected by the proposed open ocean aquaculture project located near the Isle of Shoals, NH. Interviews were conducted with recreational fishermen and women in the fall of 1998 by sociology graduate students from the University of New Hampshire. These interviews were first transcribed, then imported into QSR Nud*ist 4.0 qualitative analysis software. With the tools available through this software, generalizations and theories were generated about the interviewees' responses to the survey questions.

Introduction

Open ocean aquaculture is an expanding field of commercial ocean harvesting that consists of setting up facilities to grow fish for commercial endeavors. It will play an important role in the current commercial fishing economy by providing more jobs for these fishermen and women and increasing the amount of fish of species that are currently dwindling in numbers. A project of this stature involves a number of factors that need to be investigated before it is put into action. In addition to the biological and mechanical aspects of creating and constructing the infrastructure of an aquaculture project, it is also important to understand the social aspect—the effects that such an endeavor would have on the local people that use the proposed project area.

Using qualitative data analysis as a preliminary research tool is a powerful way to understand the human dimensions aspect of an aquaculture project. As part of an extensive investigation into the feasibility of an open ocean aquaculture project located near the Isle of Shoals off of the coast of New Hampshire (**Figure 1**), interviews were conducted with local recreational fishermen and women about their views on ocean farming. The interviews were transcribed and then analyzed through the qualitative analysis software, QSR Nud*ist (Non-numerical Unstructured Data Indexing Searching Theorizing) 4.0, in search of theories and/or generalizations in the data.

Interviews were administered to sixteen recreational fishers located along the NH coastline. Fourteen males and two females responded to the questions about open ocean aquaculture. The ages of these respondents range from 28 to 61, with the majority falling between the ages of 40 and 60. Nine of them currently live in New Hampshire, four in Maine, and three in other New England states. The income levels of the interviewees vary from between \$20,000-30,000 and above \$50,000 per year, with the mean representing the latter category. Half of the respondents are self-employed or retired, while the other half are employed by somebody else. The methods of ocean fishing varied from fly fishing and bait fishing to bottom-dragging and spear fishing while snorkeling. Ten of the sixteen respondents have at least one boat that they use.

Nud*ist provides a number of analysis tools that enable the researcher to organize and analyze the enormous amount of data that qualitative research often requires. There is a great capacity for storing and for coding the raw data files into nodes, or combinations of related data. These nodes can then be structured into subnode categories based on reoccurring patterns. Text searches will identify an individual word or certain type of words, while index searches help investigate similarities between different nodes. Nud*ist allows for the importation of data files, both statistical and non-statistical, and other documents such as those containing photographs and/or notes. Once these documents are loaded into the program, they can be coded and placed into nodes which are later used to develop theories and other generalizations about the data. Nud*ist has seventeen different index search tools and two text search methods that aid in analyzing the raw data files. Although all of the tools were used in this analysis, only four of the index search tools were used quite regularly in this project, and both of the text search methods were utilized. Once these tools have been utilized, the data can be transferred to a word processing program and then structured into the final report based on the findings of the researcher.

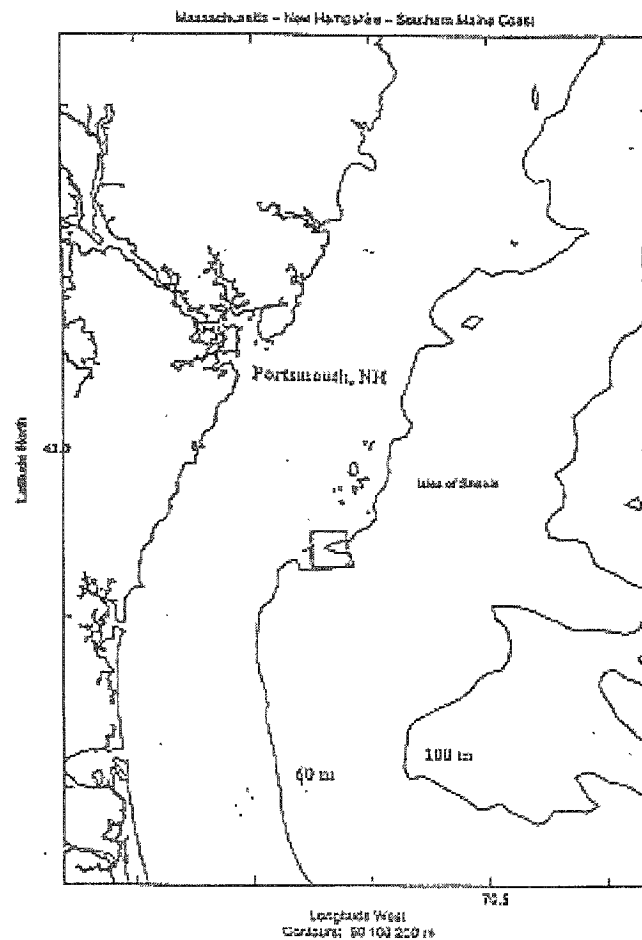


Figure 1. Location of the proposed open ocean aquaculture site off the Isles of Shoals, NH.

Nud*ist allows the researcher to obtain all of the information coded at the subnodes of a particular "branch" of the index tree (Figure 2). This method is called *collect*, and it produces a summary, segregated into sections based on the rawfiles, of the information presented under a particular node. *Inherit* is another function associated with gathering information at subnodes. The theory behind *inherit* is that all of the coding done at the nodes above the selected node, up to the parent node, is then listed in a report. There are two index searches that allow for combinations of coding to be made. The first, *union*, combines two or more nodes together based on the criteria selected by the researcher. *Intersect*, on the other hand, combines the nodes only if there is similar information coded at each node. Figure 3 offers a graphic illustration of these four index search tools.

Results

A number of concepts surfaced during the data analysis through Nud*ist that deserve attention: 1) the recreational fishers current knowledge about fishing regulations; 2) their opinion on the current status of the fish populations; 3) how they feel about commercial fishing; 4) how the increase in

crowds of recreationists has affected their fishing endeavors; 5) the respondents view of aquaculture; and 6) their opinion about the aquaculture site and it's implications.

Text & Index Search Tools

The *Collect* index search was used to evaluate the level of awareness that the respondents had towards the current ocean fishing regulations. This tool helped recognize that many of the interviewees have acquired their current knowledge about fishing regulations through the New Hampshire Fish and Game Department pamphlets and license descriptions. Popular fishing magazines, newspaper articles, books, and internet sites provide them with awareness about fishing techniques and political issues concerning the sport. In addition to the written information, there is a certain level of comradery within the fishing community, in that they share information about the types of equipment and common fishing locations with others. The majority of the respondents act politically through memberships and/or participation in organizations like the Coastal Conservation Association and the Atlantic States Marine Fisheries.

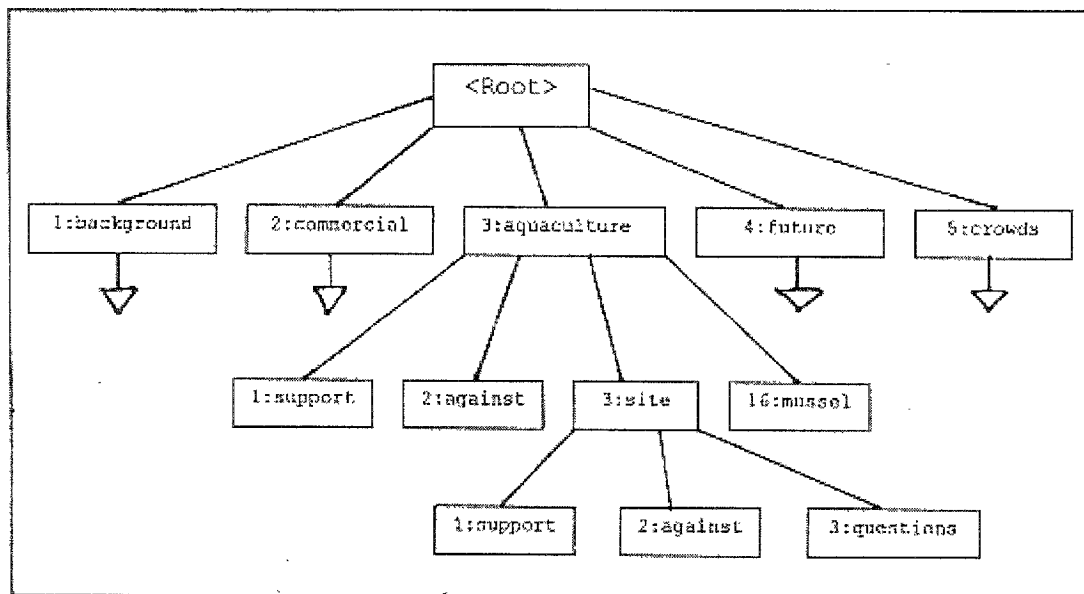


Figure 2. Index tree in QSR Nud*ist 4.0 with root, nodes, and subnodes

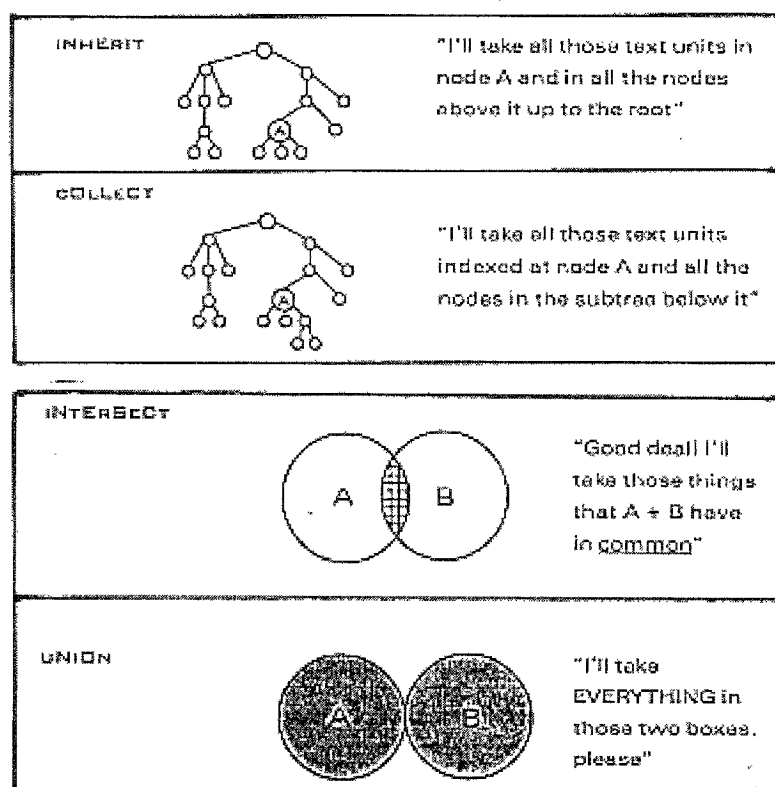


Figure 3. Index tools in QSR Nud*ist 4.0

Closely related to the respondent's awareness of regulation issues is their opinion on the current status of the fish populations. Blue fish, cod, haddock, and tuna were the species mentioned as dwindling in numbers, yet according to 75% of the respondents, the number of striped bass species has increased. When the node labeled, "fishstatus/decrease" and the "/gold rush" node were analyzed with the *union* tool, it emphasized that, according to some of the respondents, the reasons for high or low population counts are due to regulation efforts by the NH Fish and Game Department for the former, and the bottom fishing that the commercial fishing operations conduct along with the increase in value for fish on the Japanese market for the latter. One person commented, "... it's kind of like a gold rush. You know, it's like the tuna fishery at the same plane. It's like the last buffalo hunt. You know, as long as those fish are worth 22 bucks a pound, they're gonna kill every single one that they can kill."

The *inherit* tool was used to obtain insight into the feelings that the interviewees have towards commercial fishing operations by searching the text for coding done on future regulations, fishing methods, fish species status, and other political aspects related to commercial fishing. The responses varied, but nine reflected negative attitudes due to the practices, the poor attitudes, and the competition for space that this industry often produces. One interviewee responded, "Commercial fishermen are going to take everything in the ocean that they can. . . You've got to regulate it somehow to keep it under control." Five of the respondents felt that, although the commercial industry did affect their fishing (i. e., either competition for space or the loss of significant numbers of fish species), they also realized that the commercial fishermen relied on this type of industry for their livelihood; "I would just hate to not see the small time individual family fishermen." Both sides, however, support the notion of imposing stricter regulations accompanied by tighter patrolling practices on commercial fishing as a means of controlling the negative aspects of the industry.

The competition for space between the recreational fishermen and women and the commercial fishing industry is further intensified when the influx of recreational boaters is included in the analyzation. The text search tool, *string*, was used to search all of the raw data files for the occurrence of the word "crowd." The resulting report provided the information for the following generalizations. Three of the respondents replied that the impetus for such an increase is due to the strong economy that much of the United States is experiencing right now along with the increase in leisure time and the desire to be outdoors. One respondent replied that "the biggest increase is due to the striped bass fishery." They also expressed a concern about having new boaters that may not have the skills necessary for safe boating and/or fishing.

The fisherperson's view of aquaculture involves a complex answer due to the many aspects associated with it. The *union* search tool was sufficient to analyze this concept because it allowed for the data to be combined in a number of different

ways. The first question that initiated this search was, *how much did the fishermen and women already know about aquaculture?* Each of the sixteen respondents mentioned either having toured a fish farm, or at least, having been aware of them. A few of them had eaten farm-raised fish, and commented on the lower price that this method produces: "I like the price of farm raised Atlantic fish."

Whether or not the respondents approved of the proposed aquaculture project depended upon a number of issues. Due to the small number of respondents, the impact that age, income level, current residence, and employment status had on their response was not readily apparent in the data. The impact that their current awareness about aquaculture in general and their knowledge of the proposed project, however, was more easily analyzed with Nud*ist. Furthermore, the analysis recognized the high level of interest by the respondents about the project.

There were five respondents that expressed support for the aquaculture concept. Their comments reflected this enthusiasm: "I think fish farming is absolutely the wave of the future," "Everybody's on a super health kick and they all want to eat fish," and "[Fish farming] is a necessary thing. Because human beings want to eat fish and a, we're wiping out all the fish stocks all over the world." Nine of the interviewees were split on their response, but three wavered towards supporting aquaculture. They expressed concerns about fish farming not necessarily helping them out (as individuals), the impact that the project would have on the surrounding ocean environment (i. e., wastes, odors, diseases, etc.), and issues of space infringement: "as long as it didn't get in the way of the recreational [fishing]. . .".

Those respondents that were split on their opinion about aquaculture, yet leaned towards discounting aquaculture as a benefit, expressed many of the same questions about the viability of the project in addition to some others. The data indicates that the choice for the project site created uncertainty within their response: "I have a lot of concern about it in this area in New Hampshire because of our limited coastal resources." One interviewee said, "There's a good place for everything and that, that just doesn't seem like a very good place" accompanied by comments about navigational hazards, tidal influences on feeding regimes, and the interference of commercial endeavors. Questions about the regulation and protection of a site that is located in a turbulent environment such as the ocean came about as well: "the Coast Guard certainly wouldn't want to be baby-sitting that thing 24 hours a day," and comments about "very rough and very big waves" were also made concerning the site.

Two respondents did not express strong opinions either way about aquaculture, one only had questions with no opinion, but none of the respondents rejected the concept all together. The gentleman that expressed no opinion, had some very valid questions: "Is this going to be a big business thing or is this going to be designed and terms of local solution?" and "Who's going to regulate expansion [of the project]?"

The regulation of the project site was another recurring theme during the analysis. When asked about who should regulate aquaculture sites, seven respondents expressed the need for regulation by state and/or federal agencies such as the Fish and Game and Marine Fisheries departments. One suggestion for a lottery was made along with a few ideas about leasing and private ventures.

Conclusion & Recommendations

Unlike quantitative analysis where large numbers of data can be worked with at once to identify theories on a macro-scale, qualitative analysis works with fewer sets of data (although larger amounts of input) on a micro-scale, which not only help to identify the interviewees opinions about aquaculture, but it also allows for an in-depth look into recreational fishing as a sport. Nud*ist is an incredibly powerful tool for use with qualitative analysis data. Not only will it help store and manage large amounts of data, it also has search engines for word patterns and text patterns that enable the researcher to identify commonalities and theories based on the data. The sociological aspect of the University of New Hampshire's open ocean aquaculture project can also benefit from using Nud*ist in that the recreational fishermen and women are encouraged to express their opinions towards the project, which will help in future decision-making and planning.

Much can be learned from these interviews concerning the regulation of the ocean and other aspects of marine-oriented activities. The potential for sociological studies in the field of open ocean aquaculture is unlimited. The data collected for this research project can serve many purposes with respect to human interaction with ocean resources as a form of recreation. Although there were many generalizations and theories that came up during the analysis, the potential for continued interpretation of this data is infinite. If more interviews could be conducted, thus creating a larger base of

data, the following sociological questions could be analyzed and interpreted more thoroughly: *How does their birthplace (or long-term home) affect their opinions about: aquaculture, crowding, fish status, site/location for fishing, or their type of fishing techniques? Does income level affect their response about aquaculture? Do current (or past) occupations affect the response about aquaculture? How does their particular method of fishing affect their opinions about aquaculture? Does a catch and release philosophy perpetrate into their beliefs about open ocean aquaculture? Does it have any significance?*

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ESTIMATING TOURISM IMPACTS OF DEER HUNTING IN NEW YORK STATE: A CASE STUDY OF 1997 DEER TAKE DATA

Russell W. Patterson

B.A. in Environmental Studies and Public Administration,
Alfred University, 27 Wisconsin Ave., Rensselaer, NY
12144, patterrw@hotmail.com

Aaron Alsheimer

Senior Business Administration Major, College of
Business, Alfred University, Alfred, New York 14802.

James F. Booker

Assistant Professor of Economics and Environmental
Studies, College of Business, Alfred University, Alfred,
New York 14802.

Diana S. Sinton

Assistant Professor of Geography and Environmental
Studies, College of Liberal Arts and Sciences, Alfred
University, Alfred, New York 14802.

Abstract: This study explores the relationship between deer harvest, hunter participation, and hunter residence in New York State. Approximately 631,423 resident hunter and 32,605 non-resident hunters participated in deer hunting in New York State in 1997. Anglers and hunters together reportedly spend \$2.5 billion dollars and generate \$132 million dollars in sales and income taxes in New York State. These activities alone are estimated to generate millions of dollars in tourism and travel revenue for counties in New York State. This study examines the geographical distribution of these expenditures by hunters. Specifically, the hypotheses tested are a) that hunters frequently travel in order to participate in deer hunting, and b) that a substantial amount of tourism revenue is generated from such "hunter migration".

Introduction

"Recreational hunting and sport fishing play an important role in New York's economy" according to New York State Department of Environmental Conservation (NYSDEC) Commissioner John P. Cahill (NYSDEC, 1998a). What impacts do migrant hunters play in the local economies of New York State? Since 47% of hunters travel outside their home counties to hunt deer, there is the potential for large portions of expenditures to be considered tourism dollars. Specifically the questions addressed here are 1) Where do deer hunters go to participate in hunting, and 2) is there a substantial amount of tourism dollars generated from such "hunter migration"?

Background

Tourism is emerging in many communities as an increasingly important economic sector. Winterbottom (1991) estimated total U.S. employment supporting pleasure travel at 6 million in the late 1980s, with an annual income of \$80 billion and an annual growth rate of 4%. New York State has an estimated 6.1% share of U.S. domestic travel expenditures (U.S. Bureau of the Census, 1997), or about \$6 billion in total pleasure travel expenditures in 1996 dollars. The tourism sector may be particularly looked to for economic growth and development in regions with significant natural resource and environmental amenities. While traditional natural resource based industries such as agriculture continue to experience difficult economic conditions, tourism has continued to grow and expand (Powers, 1996). Much of New York State follows this general description of a decline in traditional industries and an increase in amenity based economic sectors.

Within New York State, deer hunting is a major recreational activity, and a significant source of tourism generated economic activity. In 1996 hunting related expenditures were estimated at \$763 million, including travel related expenditures of \$220 million (U.S. Fish and Wildlife Service, 1998). The most significant relative economic impact may be concentrated in a number of its rural counties, which attract hunters from the state's population centers. In these cases, the tourism impact of travel related expenditures by out-of-county hunters may be an important source of local business and tax revenue. Further, deer hunting by out-of-county hunters may be considered an important potential future area for economic development and growth.

Methodology

Data collected by the New York State Department of Environmental Conservation was used to determine whether or not hunter flows could be captured. Each record in the data set of 1997 reported deer take contained both the county where the deer was taken, and the county where the hunter resides. A matrix of hunter origin for deer taken in each county was generated to identify "importing" and "exporting" regions. This matrix was then brought into the ArcView GIS. A GIS system becomes useful in this study since each record includes spatial components, specifically the county where the deer was taken and the county where the hunter originated. These records were matched up with "canned" data included with the GIS software, allowing all of the data to be translated into ArcView Shapefiles for display and analysis purposes.

Data

The data set used in this study represents 135,992 deer reported taken in New York State during the 1997 hunting season. NYSDEC states that there were 631,423 resident licenses sold which allow for taking deer (including 21,709 second deer licenses) and 32,605 non-resident licenses for taking deer (Kautz, 1999). NYSDEC estimates that there

were nearly 217,000 deer taken during the 1997 season (NYSDEC, 1998b, 1998c). The 217,000 are estimated from the nearly 136,000 records of reported deer, thus making the data set used incomplete. The reported deer come from one or more of four sources. An individual deer can be reported by a wildlife biologist check, a conservation officer check, the hunter via the deer report card that the taker of the deer is supposed to fill out and submit, or a special hunt report that is filed when special hunts occur. In the data set of 135,992 successful hunters, 11,500 were not reported by the individual hunter but by some other method. The data contains 80,146 bucks and 53,141 doe with 2,705 either unknown or missing a gender response. These numbers should be compared with the 119,090 bucks and 97,746 doe that DEC estimates were taken in 1997. Of the nearly 136,000 records in the data set, 125,159 records contain valid county identification numbers for hunters. An additional 7,865 records are identified as out-of-state with no further information given.

Results

Figure 1 shows the number of deer taken by county from the data set. Chautauqua, Cattaraugus, Allegany, and Steuben Counties all had more than 5,000 deer taken. When the number of hunters for a given county who stay and hunt in that county is subtracted from the number of deer taken in that county, a measure of net "hunter migration" is generated (Figure 2). For example there are 1,954 hunters from Allegany County who stayed in the county to hunt. Since there were 7,440 deer taken in Allegany County, 5,486 must have been taken by out-of-county hunters. Cattaraugus, Allegany, and Steuben all show up as having a net migration of more than 2,500 hunters coming into the county in the 1997 data set. Also Delaware and Columbia Counties in eastern New York State are identified as having an "import" of more than 2,500 hunters.

The Eastern and Western Deer Markets

Figure 3 (western) and Figure 4 (eastern) break the state down further, showing two different "deer markets". Here it becomes much clearer that people are traveling to the "hot spots" to take deer, suggesting potentially large impacts to those local economies.

The western deer market is much larger than its counterpart in the east. Steuben County leads the state with 6,022 incoming hunters. Allegany and Cattaraugus Counties followed with 5,486 and 4,497 incoming hunters, respectively. The primary hunter inflows for these western

counties are from the region's major population centers, Buffalo (Erie and Niagara Counties) and Rochester (Monroe County). For example there are almost as many hunters in the database from Erie County (4,518) that hunt in the three county region (Allegany, Cattaraugus, and Steuben) as there are hunters from Steuben County (4,667) that hunt in the region. Similarly, while nearly 85 % of hunters from Allegany County hunt within that county, they represent only 25 % of the deer taken in Allegany County.

Although they received fewer incoming hunters than their counterparts in western New York, Columbia and Delaware counties still experienced significant inflows of deer hunters. For the most part, the 3,066 hunters traveling to Columbia County during the 1997 season. Delaware County had an inflow of 3,044 hunters. These hunters came mostly from the Capital District and New York City areas.

Estimating Economic Impacts

Estimating the expenditures made by individual hunters in the county to which they travel to do their deer hunting is necessary in order to determine the economic impacts to the counties visited. The estimation of expenditures per hunter came from the U.S. Fish and Wildlife Service (1998). Among other things, this survey lists trip and equipment expenditures made in New York by U.S. residents for big game hunting purposes. The data showed that, on average, each hunter spent \$577 in 1996. This total is comprised of \$143 for food and lodging, \$79 for transportation, \$14 for miscellaneous trip expenses, and \$342 for equipment. We do not make any adjustments from these 1996 dollar figures to our 1997 hunter data.

To find the economic impact of incoming hunters on a particular county, these figures are used to derive low and high estimates, for the expenses occurring in the county where the hunting takes place by the visiting hunter (Table 1). The low estimate is based on the following assumptions. The entire \$143 for food and lodging is included. A conservative estimate for transportation spending assumes that 10% of total transportation costs are incurred in the destination county, or \$8. In terms of miscellaneous trip expenses, the entire \$14 amount given in the survey is used. For the final category, equipment expenditures, only 10% of the annual per-hunter spending levels are used, equalling \$34. Taken as a whole, our low estimate of expenditures per incoming hunter was \$199.

Figure 1. 1997 Reported deer take by county

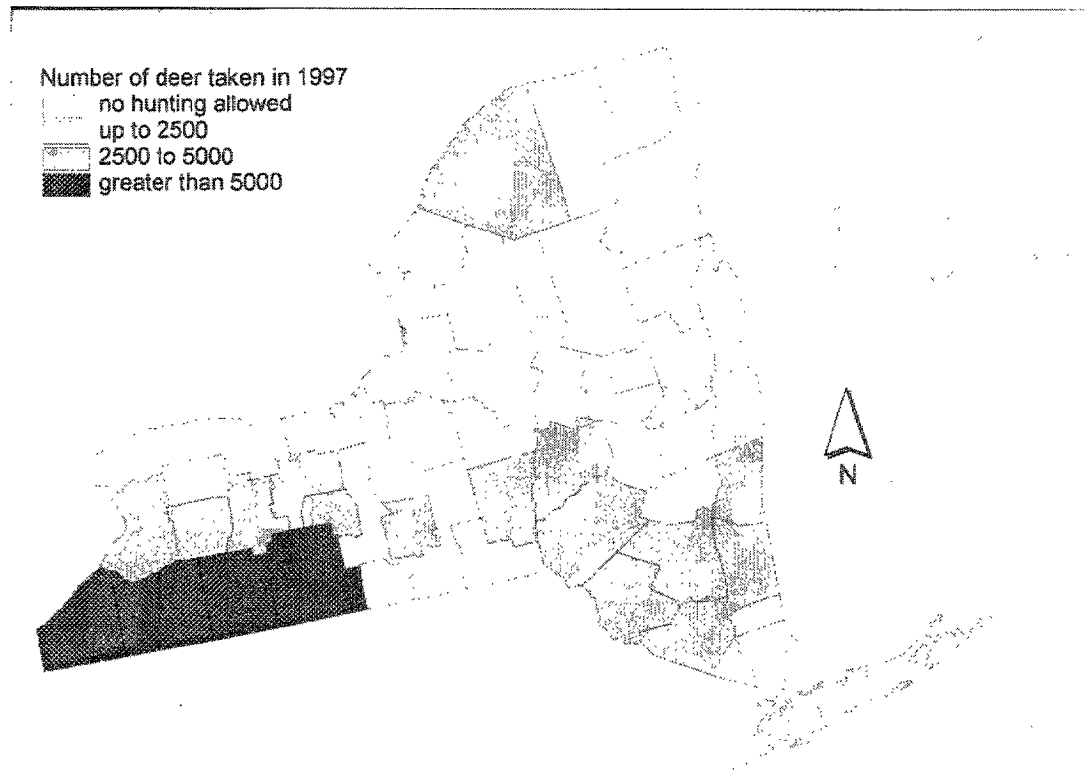


Figure 2. Hunter migration: Are they staying or going?

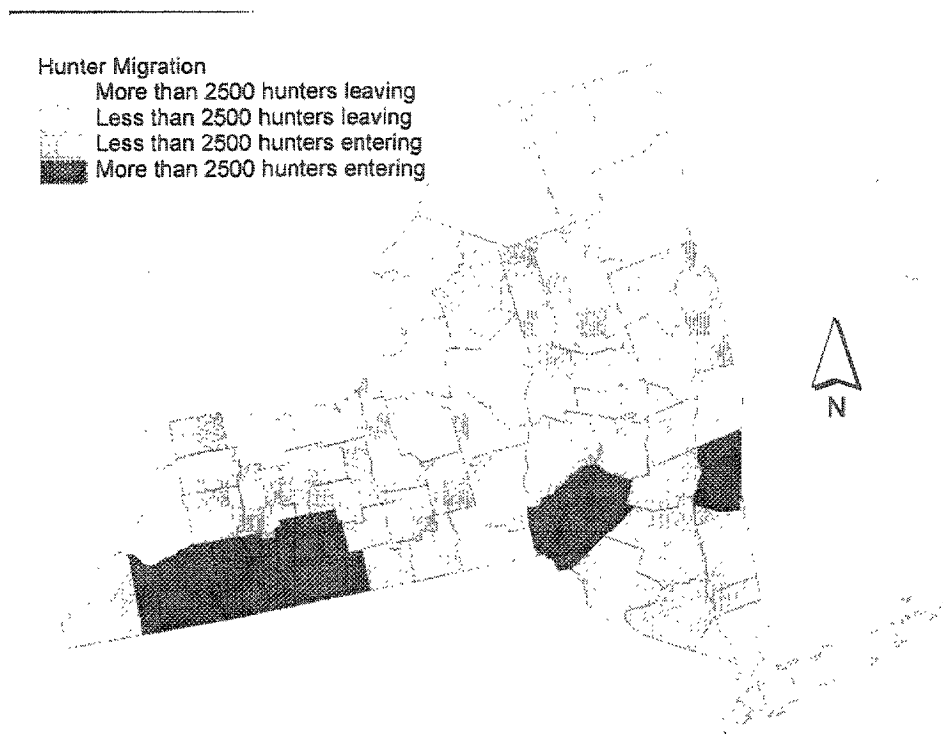


Figure 3. Where do hunters in Allegany, Cattaraugus, and Steuben Counties come from?

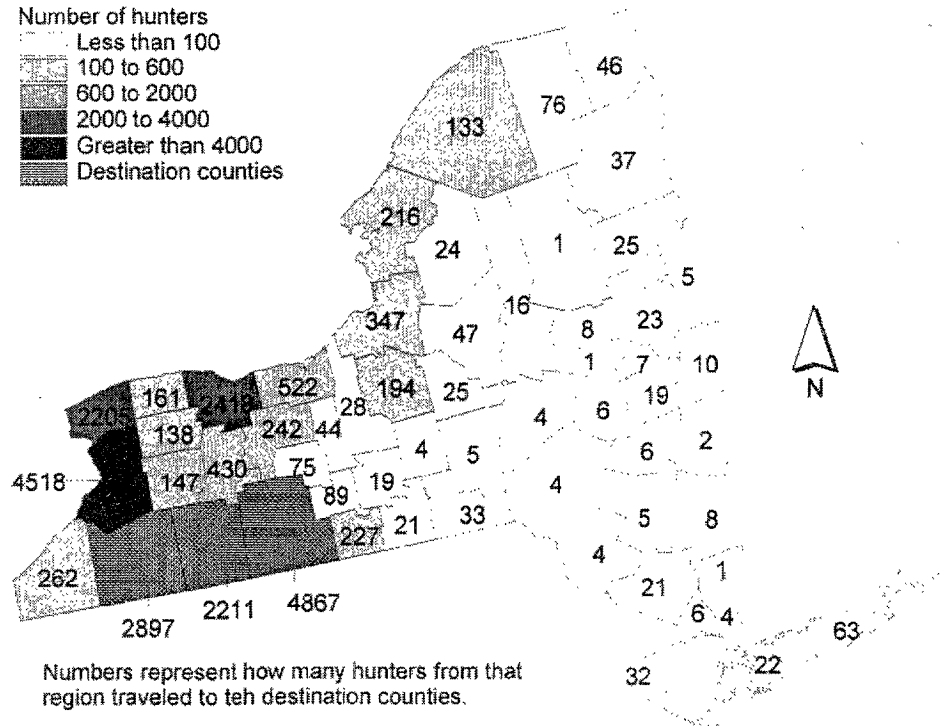


Figure 4. Where do hunters in Columbia and Delaware Counties come from?

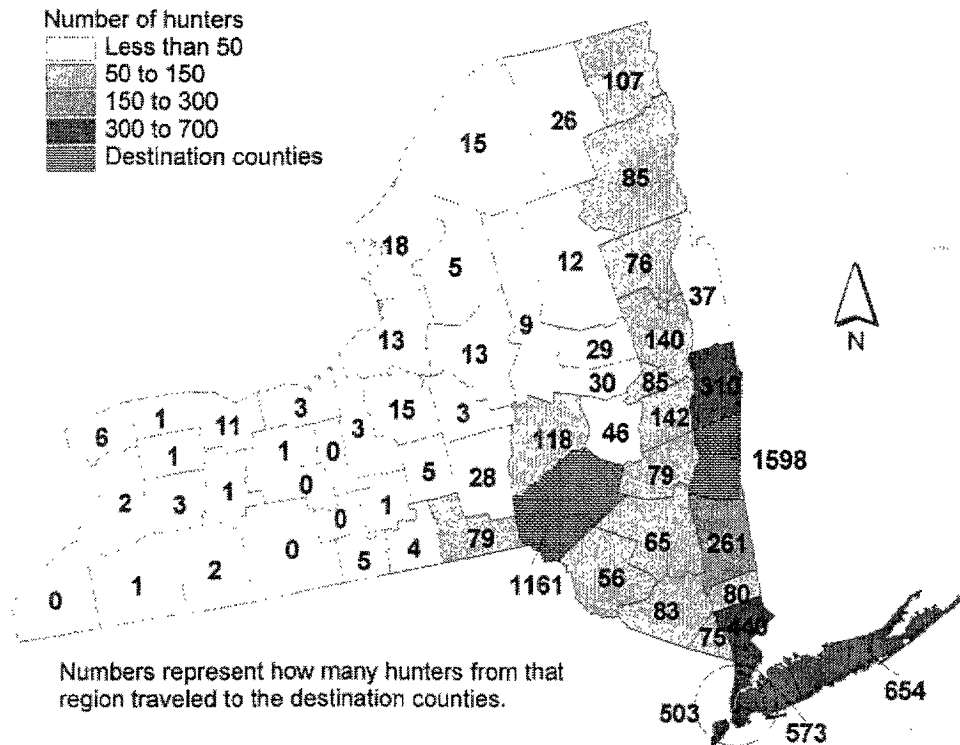


Table 1. Average trip and equipment expenditures

	U.S. Dept. of Fish & Wildlife Data ¹	Low Estimate ²	High Estimate ³
Food and Lodging	\$143	\$143	\$143
Transportation	\$79	\$8	\$40
Misc. Trip Costs	\$14	\$14	\$14
Equipment	\$342	\$34	\$113
Total	\$578	\$199	\$309

¹Based on 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation - New York. Figures represent average expenditures per hunter per season for big-game hunting.

²Low estimate assumes 10% of transportation and equipment costs are incurred within the destination county.

³High estimate assumes 50% of transportation costs and 33% of equipment costs are incurred within the destination county.

Our high estimate, like the low approximation of spending, assumed that all of the food and lodging and miscellaneous trip costs are incurred in the destination county. Transportation costs were increased to 50% of the Fish and Wildlife Service survey total, or \$40. Equipment expenditures are assumed to be 33%, equalling \$113. In the end, the total for our high estimate was \$309 per hunter.

Multiplying these estimated dollar amounts by the number of incoming hunters gives the tourism impacts from incoming hunters (Table 2). Total expenditures in Steuben

County by incoming hunters are estimated at \$1.2 million based on our low estimate and \$1.9 million based on the high estimate. Allegany County followed with total expenditures of \$1.1 million according to the low estimate and \$1.7 million according to the high estimate. Spending levels based on the low estimate were \$0.9 million in Cattaraugus County, \$0.6 million in both Columbia and Delaware Counties. The high estimate returned total economic impact figures of \$1.39 million in Cattaraugus, \$1 million in Columbia, and \$0.9 million in Delaware.

Table 2. Economic impact of New York's most popular deer hunting destinations

County	Number of Incoming Hunters	Total Expenditures (millions of 1996 dollars)	
		Low Estimate ¹	High Estimate ²
Steuben	6,022	1.2	1.9
Allegany	5,486	1.1	1.7
Cattaraugus	4,497	0.9	1.4
Columbia	3,066	0.6	1.0
Delaware	3,044	0.6	0.9

¹Low estimates of total expenditures by incoming hunters assume \$199 of in-county expenditures per hunter.

²High estimates of total expenditures by incoming hunters assume \$309 of in-county expenditures per hunter.

Putting it into Perspective

While these dollar values appear substantial, by themselves they do not indicate the overall significance of hunting for each county. The data set represents slightly more than 60% of the total number of deer believed to be taken during the 1997 season. Furthermore, not all hunters are successful. If all 664,028 license purchasers participated in deer hunting, our spending estimates capture 20% of all deer hunting related expenditures by out of county hunters. If 47% of all eligible hunters traveled outside of their resident county, and incurred \$199 in out of county expenses during the season, \$62 million in total tourism dollars are generated. This assumes of course that unsuccessful hunters incur the same expenses as successful hunters. In addition to this, there is the real possibility of one hunter taking more than one deer. A sportsman who participates in both archery and regular season and also gets a doe permit could possibly take 3 deer, or incur 3 times the expense for a single deer. Additionally, a certain segment of license purchasers may never spend a single day in the woods, since licenses can be purchased almost a

year in advance. Weather may also be a determining factor in hunter participation rates.

To take this analysis one step further, some measure of the economy of the county is needed in order to frame the hunter expenditures. The 1992 economic census estimates \$53.5 million dollars in taxable service revenues and \$211.6 million dollars for all retail trade in Allegany County (U.S. Bureau of the Census, 1992). Likewise, \$32.3 million dollars is said to be generated from the hotels, motels, camps, etc. (SIC code 70) and Restaurants (SIC code 53). Assuming that the data set is only 20% of all incoming hunters, we estimate that \$3.6 million dollars was spent by visiting hunters for food and lodging in 1992 dollars (Table 3). This can be contrasted with the neighboring Steuben County, which is believed to have generated \$170.4 million in taxable service revenues in 1992. It is estimated that Steuben received \$3.9 million dollars coming from food and lodging expenditures by all out-of-county hunters. According to the 1992 economic census, Steuben County saw \$18.4 million dollars in hotel and other lodging revenues.

Table 3. Comparison of estimated food and lodging expenses incurred by all out-of-county hunters to other indicators of economic activity. (millions of 1992 dollars)

County	Total Private Sector	Total Taxable Service Industry	Food&Lodging	
			1992 Economic Census	Estimated Sales to All Out of County Hunters ¹
Allegany	264	53.5	32.3	3.5
Cattaraugus	414	156.8	73.0	2.9
Steuben	1,656	170.4	72.2	3.8
Columbia	412	147.9	32.3	1.9
Delaware	275	77.2	31.2	1.9

Source: US Bureau of the Census, 1992 Economic Survey

¹ Assumes food and lodging expenses from Table 2. are 20% of all hunters.

Conclusions

For many of the rural counties of New York State, the arrival of the fall months and the annual deer-hunting season means a significant economic boost. Our estimates suggest that this boost is, in some cases, in the millions of dollars. Additionally, our estimates almost certainly understate reality since they are based on a portion of successful deer hunters.

The limitations of our study definitely lend support to the case for further research in this area. With the data that is available, much more could be understood about the recreation patterns associated with big game hunting in New York State. The use of license sales data would be useful in determining success rates for hunters based on their home county. This in turn could be used to adjust

particular flows of hunters and expenditures. Other parts of the study, such as the expenditure figures, could be refined. For example, since the county where the hunter is from and the township where the deer is taken are both in the data set, it would be possible to generate a more accurate estimate of travel expense incurred by the hunter. The findings presented here are thus a starting point in the process of estimating the economic value of hunting in the various counties of New York State.

This study shows that deer hunting does indeed play a major role in the local economies across New York State. The methods we have presented could be very useful to a county in its attempt to lure more hunters from other parts of the state. Knowing where hunters are coming from and understanding the extent of their economic impact is vital if

a county is to maximize the economic potential of hunting as a form of tourism.

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RECREATIONAL USE OF INDUSTRIAL FOREST LANDS IN NEW YORK STATE

Sergio Capozzi

Graduate student, State University of New York, College of Environmental Science and Forestry, 1 Forestry Drive, Syracuse, NY 13210

René Germain

Assistant Professor, State University of New York, College of Environmental Science and Forestry, 1 Forestry Drive, Syracuse, NY 13210

Chad P. Dawson

Professor, State University of New York, College of Environmental Science and Forestry, 1 Forestry Drive, Syracuse, NY 13210

Abstract: As part of New York's Sustainable Forestry Initiative, a survey of the companies and individuals involved in forest products, forest management, and primary wood processing was conducted to establish a baseline about their operations in the state in 1997. Part of that study was to measure the use of industrial forest lands for recreational activities. Of the 396 companies and individuals sent a mail survey, 237 complete and useable surveys were returned (response rate of 45%). Nearly all of the forest industry's 1.1 million acres are used for recreation and open space in the state. Survey respondents indicated that forest recreation is managed through private recreation leases on approximately 800,000 acres and an estimated 180,000 acres of forest lands are open to the public for recreational activities. The five most often reported recreational activities on industrial forest lands are hunting, snowmobiling, hiking, fishing, and observing wildlife. Forest managers are seeking ways to better manage their lands for recreation and aesthetics in addition to commercial forest products.

Introduction

Since 1960, participation in outdoor recreation in the United States has increased steadily. Specifically, growth in outdoor recreation has been highest in land-based activities such as hiking, primitive camping, and off-road vehicle driving and non-consumptive activities such as bird watching and nature studies (Cordell et al. 1998). While demand for outdoor recreation activities continues to rise at a steady rate, the supply side, mainly publicly owned parks and recreation areas, has not been able to match this increase. Limited funds and tight budgets make it difficult for federal and state agencies to acquire new lands for public recreation. Private lands, especially in the eastern U.S., are currently being used to increase the recreation supply base, usually without the outright purchase of the land. Industrial forest lands, such as those owned by timber

and pulp and paper companies, represent large contiguous tracts of land with a high potential for certain types of recreational opportunities.

This exploratory study focused on the actual recreational use of industrial forest lands in the state of New York. The objectives were threefold: to estimate the amount of outdoor recreation on industrial forest lands in the state of New York, to identify possible acreage trends regarding the amount of land open without fee and amount of land with fee, and to determine the most frequently occurring activities on industrial forest lands. While this study provides a general description of recreational use of industrial forestlands, more research is needed to help owners better manage their lands for recreation and commercial profit. The results from this study will be used to guide subsequent research on recreational use on industrial forest lands.

Background

Corporate forest lands often have more contiguous acres and a larger percentage of land covered with forests and water than non-corporate landowners. Given these characteristics, corporate lands are able to serve many people and provide numerous opportunities for recreational use in addition to non-corporate lands. A majority of industrial firms realize the great potential their lands hold for recreation (Cordell et al. 1993). Trespassing, vandalism, and liability issues have caused some industrial owners to post their lands to restrict public use. While posting limits uncontrolled public access, recreational leases and easements are used as ways to facilitate public use of private lands for recreational activities.

Recreational easements and leases differ legally in regards to ownership and rights of the land. Easements transfer limited rights of one property to the owner of an individual, organization, or agency and are generally associated with right-of-way agreements or specific and limited recreational activities (e.g., access across one property to reach another or recreational hiking trails). Legal ownership of the property remains with the original owner, but specific, limited use is granted to specific users. On the other hand, a lease transfers use of the property to the lessee. A lease is bound by a specific time period and an agreed upon fee. Most recreation on industrial forest lands occurs through either free access or leasing, as easements usually are limited to right-of-way access to another property.

In the past, and to a lesser extent now, industrial forest owners kept all of their land open for free public access. The primary reason behind this was to maintain a good relationship with the neighboring landowners. As problems such as trespassing and vandalism arose and the need to maximize corporate profits became more important, industrial owners posted their lands and looked for new ways to provide recreational opportunities on their lands. In a 1969 study by Patrick, a representative from International Paper stated the high probability of changing from a no fee, open access policy to some sort of payment access policy,

citing both economic and ecological reasons. Leasing is one such payment access policy which allows for continued recreational access, but also provides a way to generate income to pay for the annual operational costs of managing a forest, such as property taxes. Additionally, it encouraged users to act responsibly and act as stewards of the land.

Recreational leasing on industrial forest lands, however, is not a panacea. Vandalism, destruction of property, and litter were and still are common problems that afflict industrial forestlands open for public use. Landowner liability for user injuries incurred while on the corporate property is a problem both for owners allowing free access and those leasing land. Furthermore, problems can arise from users who do not agree with the forest land use and harvesting techniques of the industrial landowner. These types of problems deter industrial forest owners from making their lands available for public use.

Posting lands against trespass is one way for owners to reduce problems associated with recreational use. Generally, private landowners, both corporate and non-corporate, with more than 500 acres tend to post their lands. Private landowners with less land seem to be able to control and monitor their lands without posting (Birch 1983). While posting restricts public access, it does not necessarily limit recreational use. Often, private landowners post their land to control access, not to completely bar recreational use (Brown et al. 1984).

Whether posted or not posted, leased or open access, the fact remains that the majority of industrial forestlands in New York are open to some form of recreation. Historically, most recreational use of industrial lands has been in the form of hunting. Firms tended to stay away from picnicking and camping-type activities because of site degradation problems and the possibility of fires on their property (Birch 1983). Hunting continues to remain the top draw for recreational use of industrial lands, but there is an increasing demand for other activities such as hiking and camping. As consumptive activities decrease in popularity and more emphasis is put on non-consumptive outdoor recreation, it may be necessary for industrial firms to reconsider their lease marketing strategies and target markets.

Methods

Results from this study were extrapolated from the 1998 New York Sustainable Forest Initiative (SFI) Progress Report. The SFI is a national program promoting environmentally sound forest management techniques. Its main goal is to meet the forest product needs of the present while planning for continued sustainability in the future. The SFI program works to achieve this goal by promoting environmentally and economically responsible management techniques, long-term forest health and

productivity, proper management of forests with special qualities (e.g., biological, geological, historical), and by continuously improving forest management practices through regular monitoring of progress toward the goal of sustainable forestry (Germain 1998). Progress in the state of New York is monitored through the use of an annual survey that is sent to the state's forest products community.

In the 1997 survey, 396 industrial owners and individuals involved in forest products, forest management and primary wood processing operations received questionnaires. 237 completed surveys were returned, but only 174 were useable (response rate of 45%). Of the 174 useable surveys, 82 were completed by industrial owners who indicated a response to the recreation portion of the questionnaire. The recreation portion of the questionnaire focused on four questions. These questions asked for the amount of acres of forestland open to public access without a fee, the amount of acres of forestland open for a fee, an estimation of recreational user days on forestlands in 1997, and a ranking of the three most frequent recreational activities on company forestlands.

This exploratory study benefited from information provided in the 1998 NY SFI Progress Report. The Statistical Package for the Social Sciences (Version 7.5) for Windows was used to generate general descriptive statistics. Further statistical analysis was done to determine what relationships and patterns of use, if any, existed for recreational use of industrial forestlands. However, any patterns discussed in this study are based on the analysis of general descriptive statistics. Further research is needed to test for the significance of any trends and relationships discussed in this paper. The general description obtained in this project will be used as a basis for a larger study looking specifically at recreational leases on industrial lands.

Results and Discussion

General information were summarized regarding the amount of acres open without a fee and acres open with fee in relation to the total acreage categories (Table 1). As expected, the three variables all increased as the total amount of forestland increased. Correspondingly, the largest total acre category had the greatest average amount of acres open without fee and open with a fee. This is consistent with previous studies that indicate larger tracts of land are more suitable for outdoor recreational activities (Cordell et al. 1993). A second interesting finding is that more acres are open without fee as compared to acres open with a fee except in the largest total acre category. Much like posting, this could be due, in part, to the fact that owners with smaller tracts of land are better able to control public access than those with larger tracts of land. Another explanation could be that charging fees is more financially viable on larger as opposed to smaller tracts of land.

Table 1. Average Acreage and Acreage With and Without Fees in 1997.

Range (Acres)	Acres	Acres Open for Fee	Acres Open without Fee
1-200	136	15	69
201-400	304	17	141
401-800	611	55	362
801-4,000	1,605	718	822
4,001-10,000	7,305	2,482	4,606
10,001-308,000	88,015	58,453	8,192

The percentage of total acres open without fee and open with fee varied across the total acre categories (Figure 1). There is a higher percentage of acres open without fee than acres open with fee in all categories except the 801-4,000 and 10,001-308,000 categories.

Percent open with fee is lowest in the three smallest acre categories and highest in the three largest. On average, over 40% of total land is open without fee, except in the largest total acre category

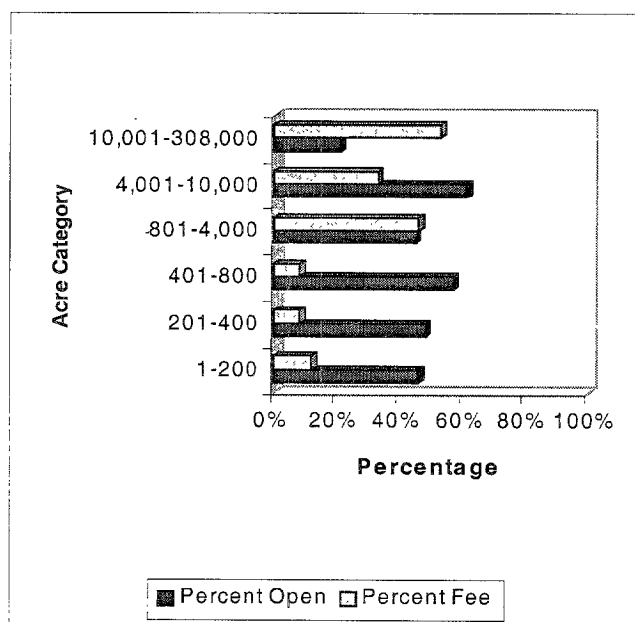


Figure 1. Average Percentage Comparison of Land with Fees and Open by Acre Category in 1997.

Of the 82 industrial forest respondents, 78 indicated a response to the acres open with a fee question. Approximately 60% of respondents however indicated having no acres open for fee access. Percentages of no open for fee responses were highest in the three smallest total acre categories (1-200, 201-400, and 401-800). Again, this could indicate that owners with small tracts of land are better able to control access to their lands and, thus, do not need to lease their lands. Of those landowners who gave a response other than no acres for the acres open with fee

question, landowners with larger total acres were more likely to charge a fee for use of their lands than those with smaller total acres (Table 2). Roughly 35% of all industrial forest landowners responding to the open with fee question fell into the three largest total acre categories (10% of landowners fell in the 801-4,000 and 4,001-10,000 acre categories and close to 15% fell in the 10,001-308,000 acre category). This indicates a greater opportunity for outdoor recreation on larger tracts of land, as there is a greater amount of land available for recreationists.

Table 2. Average Percentage of Acres Open With Fee, Compared to Total Acres, in 1997.

Total Acres	0	1-1,000	1,001-10,000	10,001-238,000
1-200	18.0%	2.6%	0%	0%
201-400	16.7%	1.3%	0%	0%
401-800	12.8%	2.6%	0%	0%
801-4,000	5.1%	5.1%	3.9%	0%
4,001-10,000	5.1%	3.9%	6.4%	0%
10,001-308,000	2.6%	2.6%	1.3%	10.3%

All 82 industrial owners responded to the open without fee question, but a large percentage indicated no acres were available without a fee as their response (44%). While close to 55% of all industrial landowners have a portion of their land open without a fee, there is only a slight difference between the percentage occurring among owners of small forest areas as compared to those with large forest areas. The two categories with the lowest percentage of acres

available without a fee are the 201-400 and 10,000-308,000 categories. The remaining three categories account for 11% or more of all owners who indicated a response for this question (Table 3). This suggests that total acres does not necessarily limit having a portion of land open without fee. Although a larger percentage of industrial owners have a portion of their lands open without fee, much more total land is available through the payment of a fee.

Table 3. Average Percentage of Acres Open Without a Fee, Compared to Total Acres in 1997.

Total Acres	0	1-250	251-1,000	1,001-7,000	7,001-40,000
1-200	9.8%	11.0%	0%	0%	0%
201-400	9.8%	0%	7.3%	0%	0%
401-800	2.4%	4.9%	7.3%	0%	0%
801-4,000	7.3%	0%	2.4%	4.9%	0%
4,001-10,000	4.9%	1.2%	0%	6.1%	4.9%
10,001-308,000	9.8%	0%	0%	0%	6.1%

Hunting is by far the most frequently occurring activity on industrial forestlands. Sixty-four percent of all owners listed hunting as the primary activity on their lands (Figure 2). Snowmobiling, hiking, fishing, and observing wildlife were the next most often indicated activities, but none of these were significantly considered as primary activities. More than 28% of owners indicated both snowmobiling and hiking as secondary activities. Cross country skiing and berry picking rounded out the top activities. A fairly small percentage of owners listed picnics, nature study, and canoeing as secondary and tertiary activities.

While these results are valuable, it is important to note that they may not be indicative of the total recreational use of industrial lands. The SFI survey asked companies to indicate acre totals based on public use. However, often owners, employees, and their immediate families are allowed to use the company lands for recreational activities. Including this type of use could significantly change the data in that a more realistic picture of recreational use of industrial lands could be created. This supplemental data would add to general public use of industrial forest lands.

Conclusion

Industrial forestlands account for 1.1 million acres of land in the state of New York. It was determined that almost all of this land is open in some form for public use. Nearly 800,000 acres are leased to individuals and clubs, while approximately 180,000 acres are open for public access without fees. These lands play an important role in providing recreation for the public and in partially relieving the stress of over use on public lands.

Some important results with regard to recreation on industrial forest lands emerged from this study. Many industrial landowners have a certain percentage of their land open with or without fee, but by far it is large landowners who provide the most land for public use. In fact, 78% of all lands that are open to the public (with or without fee) and 92% of all recreation user days occur in the largest total acre category of this study. These results indicate that there is more opportunity for outdoor recreation activities on larger tracts of land. While this initial study resulted in describing recreational use of industrial forest lands, more research is needed to help owners better manage their lands for both recreation and profit.

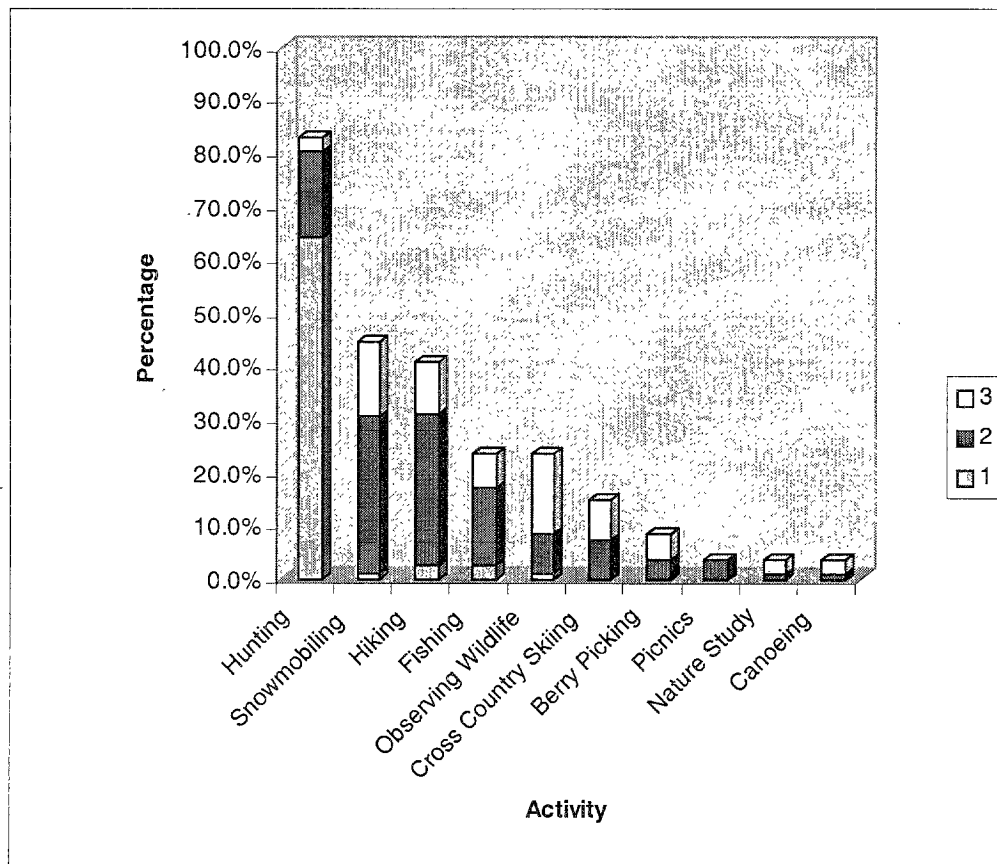


Figure 2. Recreational Activities and Their Ranking by Use on Industrial Forest Lands in New York State in 1997.

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